

MasterImage 3D

ABSOLUTELY 3D

About MasterImage 3D



The Best in 3D

Brightness: Significantly brighter than Dolby and 3D active systems

Clarity: Clearer image (lower cross-talk) than RealD

Ownership: Favorable license-free ownership business model

Simplicity: Plug and play installation

Committed to 3D

2004 – Company founded in Seoul, Korea

2006 – First installation at CJ CGV Korea

2008 – First digital 3D cinema installations in US market

2009 – Moved company headquarters to US
– \$15MM investment by Symphony 3D
– 500 systems installed in US market

2010 – First digital 3D cinema installations in European market

– 1,000 systems installed in European market

2011 – \$15MM investment by Samsung

– 4,500 systems installed

– 100M glasses sold

2012 – Launch of MI-CLARITY3D

Satisfied Customers Include



- AFM Sinemalan
- BIG Cinema
- Bow-Tie Cinemas
- Celebration Cinema
- Cinemas Guzzo
- Cineplexx Germany
- Cinépolis
- CJ CGV
- Classic Cinemas
- Empire Cinemas
- Europalaces
- Golden Harvest
- Golden Village
- Goodrich Quality Theatres
- Harkins Theatres
- Kinopolis Cinema
- Krikorian Metroplex
- Landmark Theatres
- Les Cinemas Gaumont Pathé
- MARS
- Metropolitan Theatres
- Omniplex Cinemas
- SM Cinema
- Sterkinekor Theatres
- Toho Cinemas
- Tokyu Recreation

Making 3D Thrive Around The World



Americas

1,000 SYSTEMS

Europe/Africa

2,200 SYSTEMS

Asia/Oceania

1,300 SYSTEMS

Office Locations

A light blue world map is centered in the background. Six semi-transparent white rectangular boxes are overlaid on the map, each containing text for a specific office location. The boxes are arranged in two columns: three on the left and three on the right. The text in each box includes a region name in blue, italicized font, followed by 'MasterImage 3D' in a standard black font.

US (AMERICAS) HQ

MasterImage 3D

JAPAN

MasterImage 3D

UK (EMEA)

MasterImage 3D

TAIWAN

MasterImage 3D

KOREA (ASIA)

MasterImage 3D

CHINA

MasterImage 3D

Core Technology

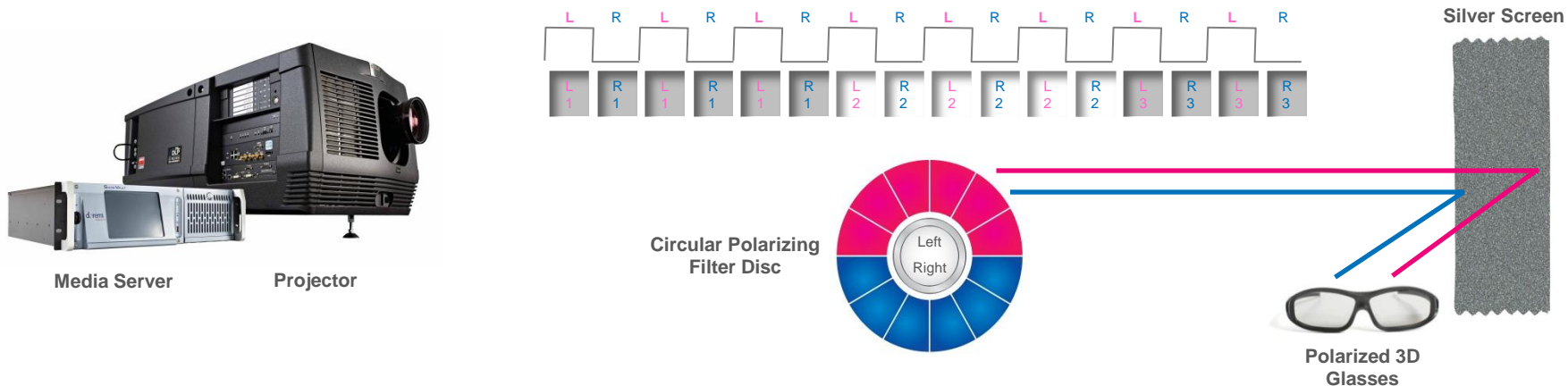
Circular Polarized Filter Disc

- Proprietary assembly bonds the highest quality polarizers to a durable polarized filter disc
- Precise separation of left and right eye images delivers picture quality that is bright and clear – with maximum color clarity
- Worldwide Patent
- Optically the simplest and most precise 3D filtering system on the market
 - Using **99.98%** polarization efficiency of polarizer
 - **2 layer (1 panel/1 polarizer)** for maximum brightness (vs. 7 layers in the RealD Z-Screen)



How It Works

- Media server sends 3D images to projector
- Projector beams Left and Right images sequentially
- Polarized Filter Disc creates circular polarized Left and Right images in accordance with flash rate
- Silver Screen precisely reflects Left and Right images
- MI3D Glasses take the Left image to the Left lens and Right image to the Right lens



MasterImage 3D System

Solutions for Every Theater



MI-CLARITY3D SA
[STAND ALONE]



MI-CLARITY3D RH
[RETRACTABLE HEAD]



MI-CLARITY3D MX
[MEZZANINE-FREE]



MI-DUAL3D
[DUAL PROJECTION]



MI-WAVE3D
[LCD]

MI-CLARITY3D Features



Image quality:

- Optically the simplest and most precise 3D filtering system on the market
- Avoids multiple layers of liquid crystal materials – removing image manipulation and loss of quality
- High transmittance polarization film with anti-reflection (AR) coating to maximize transmittance
- High frame rate compatible

Automation :

- Remote access to all automation features through GPIO, RS232, 3D Port, TTL and Ethernet ports
- User-friendly software updates
- Control of system through standard industry servers; supports all cinema standards
- Full graphic display user-interface for system setup and status
- Variety of options for automated 2D/3D positioning and memory

Synchronization:

- Pulse frequency range: 48Hz - 76 Hz
- Projector synchronization signal may be provided through a variety of sources: GPIO, RS232C, 3D Port, TTL, Ethernet

MI-CLARITY3D SA

- Superior image quality and color fidelity
- Optimized engineering with sleek styling
- Exceptional reliability and low maintenance
- 3D automation
- High frame rate compatible
- Approved and certified by Hollywood studios



MI-CLARITY3D RH

For theaters with small projection booths

- Wall-mount frame for 2D/3D filter movement in horizontal or vertical position
- Control console allows floor-standing, rack- or wall-mounting within 5m of filter assembly



MI-CLARITY3D MX

For theaters with no projection booth

- Compact HEPA-covered filter head mounts onto boothless projector stand
- Control console allows floor-standing and rack- or wall-mounting within 5m of filter assembly.



MI-1000

For theaters with screens over 55' with dual projection

- Dual filter solution provides optimal 3D viewing with all of our 3D eyewear for oversized screen installations larger than 60 feet



MI-WAVE3D

For smaller theaters

- Passive polarization modulator
- Cost-effective solution for small-sized theaters
- 100% high frame rate ready
- Approved/certified by Hollywood studios
- Dust free & noiseless



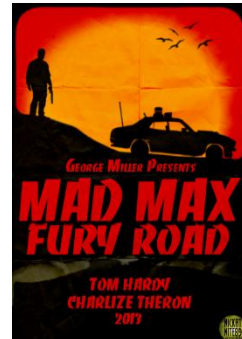
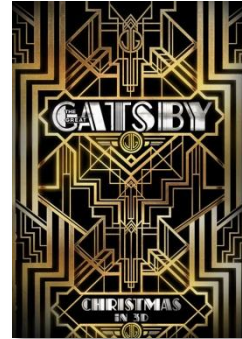
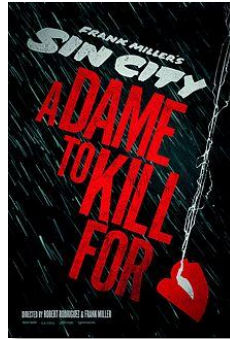
Business Model

A Better Business Model

- Retain all your revenue from 3D ticket sales
- No ongoing royalties or license fees
- One-time purchase or financing options
- 2 year complete warranty
- Freedom to choose which theatre/auditorium you deploy the system



Benefit from the Success of Upcoming 3D Blockbusters



A promotional image for Avatar 2. The background shows a Na'vi character riding a large, dark, multi-limbed creature through a lush, green forest. In the foreground on the right, there is a close-up of a Na'vi face with a large, yellow eye and white markings on its skin. The title 'AVATAR 2' is written in a glowing, blue, stylized font at the bottom.

Avatar 2

- Scheduled for 2015
- 2 additional films planned (Avatar 3 & 4)

AVATAR 2

MasterImage 3D Cash-Flow Advantages

RealD

Save over **\$28,000** per screen during your first three years.

KEY REASON:

RealD 5% ticket margin

Dolby

Save over **\$22,000** per screen during your first three years.

KEY REASON:

High cost of Dolby eyewear

Active

Save over **\$20,000** per screen during your first three years.

KEY REASON:

High cost of Active eyewear

The Real Cost of RealD Per Screen



AVATAR

Total Gross: \$760,507,625
#Screens: 3,461
3D Gross: \$608,406,100
#3D Screens 2,032
3D Attendance: 27,520
RealD Fees: \$13,072



AVENGERS

Total Gross: \$615,280,156
#Screens: 4,349
3D Gross: \$319,945,681
#3D Screens 3,364
3D Attendance: 8,538
RealD Fees: \$4,055



TOY STORY 3

Total Gross: \$415,004,880
Screens: 4,028
3D Gross: \$244,852,879
#3D Screens 3,021
3D Attendance: 7,449
RealD Fees: \$3,539



TRANSFORMERS

Total Gross: \$352,390,543
#Screens: 4,088
3D Gross: \$211,434,326
#3D Screens 2,789
3D Attendance: 6,917
RealD Fees: \$3,286

MasterImage 3D vs. RealD



Year	REALD						MASTERIMAGE 3D					
	2013	2014	2015	2016	2017	2018	2013	2014	2015	2016	2017	2018
Ticket Charge (License Fee)	\$ 11,469	\$ 13,152	\$ 13,952	\$ 13,608	\$ 15,292	\$ 16,091	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Blockbuster Adjustment	\$ -	\$ 1,000	\$ 1,000	\$ -	\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Annual Payments	\$ 11,469	\$ 14,152	\$ 14,952	\$ 13,608	\$ 16,292	\$ 16,091	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ -
Monthly Average	\$ 956	\$ 1,096	\$ 1,163	\$ 1,134	\$ 1,274	\$ 1,341	\$ 333	\$ 333	\$ 333	\$ 333	\$ 333	\$ -
MasterImage 3D Cash Flow Savings							\$ 7,469	\$ 10,152	\$ 10,952	\$ 9,608	\$ 12,292	\$ 16,091
Cumulative Cash Flow Savings							\$ 7,469	\$ 17,621	\$ 28,573	\$ 38,181	\$ 50,473	\$ 66,565
Movie Theater Industry Valuation Multiple							5.5x	5.5x	5.5x	5.5x	5.5x	5.5x
Movie Theater Increased Owners Value Per Screen							\$ 41,079	\$ 55,838	\$ 60,235	\$ 52,846	\$ 67,605	\$ 88,503
Total Cash Savings plus Equity Value Increase							\$ 48,548	\$ 73,459	\$ 88,809	\$ 91,027	\$ 118,078	\$ 155,067
MasterImage % of RealD Annual Cash Flow							34.88%	28.26%	26.75%	29.39%	24.55%	0.00%
MasterImage % of RealD in a Low Grossing Month							61.69%	61.69%	61.69%	61.69%	61.69%	0.00%

MasterImage 3D vs. Dolby



Year	DOLBY						MASTERIMAGE 3D					
	2013	2014	2015	2016	2017	2018	2013	2014	2015	2016	2017	2018
Installment / Depreciation (average)	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ -	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ -
Glasses (Profit)/Loss	\$ 8,451	\$ 9,691	\$ 10,280	\$ 10,027	\$ 11,268	\$ 11,857	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Blockbuster Adjustment	\$ -	\$ 737	\$ 737	\$ -	\$ 737	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Annual Payments	\$ 9,951	\$ 11,928	\$ 12,517	\$ 11,527	\$ 13,504	\$ 11,857	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ -
Monthly Average	\$ 829	\$ 994	\$ 1,043	\$ 961	\$ 1,125	\$ 988	\$ 333	\$ 333	\$ 333	\$ 333	\$ 333	\$ -
MasterImage 3D Cash Flow Savings							\$ 5,951	\$ 7,928	\$ 8,517	\$ 7,527	\$ 9,504	\$ 11,857
Cumulative Cash Flow Savings							\$ 5,951	\$ 13,879	\$ 22,396	\$ 29,923	\$ 39,428	\$ 51,284
Movie Theater Industry Valuation Multiple							5.5x	5.5x	5.5x	5.5x	5.5x	5.5x
Movie Theater Increased Owners Value Per Screen							\$ 32,729	\$ 43,604	\$ 46,845	\$ 41,400	\$ 52,275	\$ 65,213
Total Cash Savings plus Equity Value Increase							\$ 38,680	\$ 57,483	\$ 69,240	\$ 71,323	\$ 91,702	\$ 116,497
MasterImage % of Dolby Annual Cash Flow							40.20%	33.53%	31.96%	34.70%	29.62%	0.00%

MasterImage 3D vs. Active



Year	ACTIVE						MASTERIMAGE 3D					
	2013	2014	2015	2016	2017	2018	2013	2014	2015	2016	2017	2018
Installment / Depreciation (average)	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ -	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ -
Glasses (Profit)/Loss	\$ 8,692	\$ 9,968	\$ 10,574	\$ 10,314	\$ 11,590	\$ 12,196	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Blockbuster Adjustment	\$ -	\$ 758	\$ 758	\$ -	\$ 758	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Annual Payments	\$ 9,692	\$ 10,968	\$ 11,574	\$ 11,314	\$ 12,590	\$ 12,196	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ -
Monthly Average	\$ 808	\$ 914	\$ 965	\$ 943	\$ 1,049	\$ 1,016	\$ 333	\$ 333	\$ 333	\$ 333	\$ 333	\$ -
MasterImage 3D Cash Flow Savings							\$ 5,692	\$ 6,968	\$ 7,574	\$ 7,314	\$ 8,590	\$ 12,196
Cumulative Cash Flow Savings							\$ 5,692	\$ 12,660	\$ 20,234	\$ 27,548	\$ 36,138	\$ 48,333
Movie Theater Industry Valuation Multiple							5.5x	5.5x	5.5x	5.5x	5.5x	5.5x
Movie Theater Increased Owners Value Per Screen							\$ 31,307	\$ 38,324	\$ 41,657	\$ 40,225	\$ 47,243	\$ 67,076
Total Cash Savings plus Equity Value Increase							\$ 36,999	\$ 50,985	\$ 61,892	\$ 67,773	\$ 83,380	\$ 115,409
MasterImage % of Active Annual Cash Flow							41.27%	36.47%	34.56%	35.36%	31.77%	0.00%

MasterImage 3D: Your Tech Provider, Not Your Business Partner



Assumptions:

Movies per Screen per Year (box office window closing)	12	13	14	15	16	17
Major 3D Film	\$ 1,683	\$ 1,683	\$ 1,683	\$ 1,683	\$ 1,683	\$ 1,683
High Grossing 3D Showing	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800
Low Grossing 3D Release	\$ 540	\$ 540	\$ 540	\$ 540	\$ 540	\$ 540
Major 3D Films per Year	3	4	4	3	4	4
High Grossing 3D Showings per Year	6	6	7	8	8	9
Low Grossing 3D Releases per Year	3	3	3	4	4	4
Total 3D Movies Per Screen per Year	12	13	14	15	16	17
Annual 3D Movie Attendance	24,145	27,689	29,372	28,649	32,193	33,877

Note 1: Avatar averaged almost \$5,000 in License payments per screen

Note 2 : Alternative Content (World Cup, 3D Concerts)

Assumption 1: 45% of Total Box Office is 3D per movie

Assumption 2: Average Screen Size is 200 seats

Assumption 3: Silver Screen and Washing Machine offset

Assumption 4: Dolby and Active Breakage	5.00%	2.00%
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Assumption 5: Dolby and Active Cost Replacement	\$ 7.00	\$ 18.00
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Source: IMDB

Just the Facts

MasterImage 3D

The Most Complete 3D Solution



	<i>MI-CLARITY3D</i>	<i>REALD Z-SCREEN</i>	<i>REALD XL</i>	<i>DOLBY</i>	<i>ACTIVE</i>
<i>3D SYSTEM HARDWARE DESCRIPTION</i>	POLARIZED FILTER DISC	TIME-DIVISION MULTIPLEXING POLARIZER	DUAL OPPOSING TIME DIVISION MULTIPLEXING POLARIZER	180-DEGREE COLOR WHEEL	IR SYNC/EMITTER CONTROLLER
<i>BRIGHTNESS/ EFFICIENCY</i>	20%	15%	28%	11%	17%
<i>SILVER SCREEN</i>	YES	YES	YES	NO	NO
<i>GHOST-BUSTING REQUIRED</i>	NO	YES	YES	NO	NO
<i>LICENSE-FREE OWNERSHIP</i>	YES	NO	NO	YES	YES

RealD

Technology:

Circular polarization using liquid crystal switching panel

Disadvantages:

- High crosstalk due to low separation of left/right images
- Requires ghost-busting which results in inferior image clarity
- License fees increase costs significantly year-over-year
- Liquid crystal degradation
- *XL system:*
 - Dual lens alignment difficult to align—impacts image sharpness
 - High-cost; complicated installation



Dolby

Technology:

Tri-band color spectral

Disadvantages:

- Extremely low brightness due to spectral filtering
- Color processing required
 - Color differences between eyes cause discomfort
- Complicated installation and color calibration
- Expensive eyewear – losses become more significant with theft/damage and cleaning expenses



Active-Type

Technology:

Active polarization

Disadvantages:

- Extremely expensive eyewear – losses become more significant with theft/damage and cleaning expenses
- Unpredictable user experience due to difficulty of monitoring battery life
- Eyewear is heavy; uncomfortable for the customer
- Flickering image can cause discomfort for users



3D Eyewear

3D Eyewear Models

MI-G1000 *(recyclable)*

- Individually packaged for easy distribution
- Available in both adult and child sizes

MI-G1000R *(reusable)*

- Lowest cost-per-use of all our eyewear options
- Durable, polycarbonate frames
- Hard-coated, scratch-resistant lenses
- Wash and reuse up to 100 times

MI-G500 *(clip-on)*

- Precise lens quality as our standard eyewear
- Comfort and convenience of clip-on lenses
- Complete with reusable case



Customer Testimonials



“They’re pushing 3D to a better place, technically and theatrically.”

Vince Guzzo
EVP & Chief Operating Officer
Guzzo Cinemas



“We equipped all of our theaters in Spain, France and Switzerland.”

Nicolas Hamon
Projection and Sound Manager
Kinopolis Group




“Our requirement was the right business model plus great people—the true test of a lasting partnership.”

Fiaz Mahomed
Chief Executive Officer
Ster-Kinekor Theatres




Customer Testimonials

A photograph of Todd Cummings, a man in a dark suit and light blue shirt, smiling and leaning against a piece of equipment in a dark room.

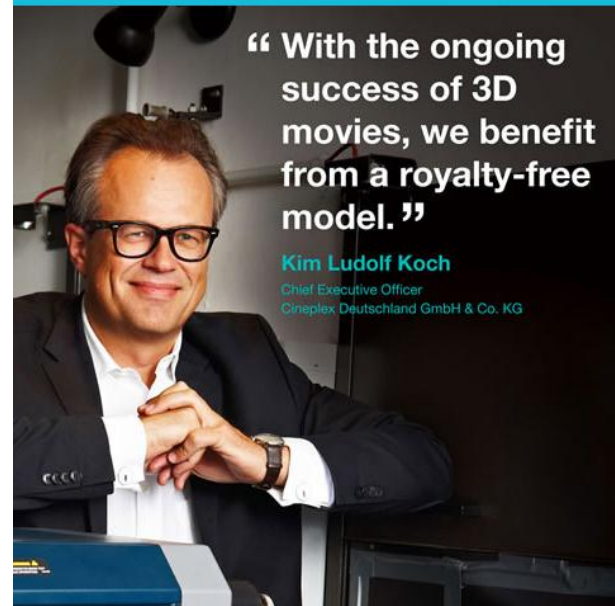
“It doesn’t make sense to go with anyone else.”

Todd Cummings
Vice President of Operations
Krikorian Premiere Theatres

A photograph of Martin Betz, a man with glasses and a goatee, wearing a dark suit and light blue shirt, smiling and pointing towards the camera. He is holding a pair of 3D glasses in the foreground.

“Their lower cost-of-ownership model was the way to go.”

Martin Betz
Chief Operating Officer
Goodrich Quality Theatres

A photograph of Kim Ludolf Koch, a man with glasses, wearing a dark suit and white shirt, smiling with his hands clasped in front of him.

“With the ongoing success of 3D movies, we benefit from a royalty-free model.”

Kim Ludolf Koch
Chief Executive Officer
Cineplex Deutschland GmbH & Co. KG

Customer Testimonials



**“Ownership,
Reliability,
Flexibility—
they’re all
key factors.”**

Chris Johnson

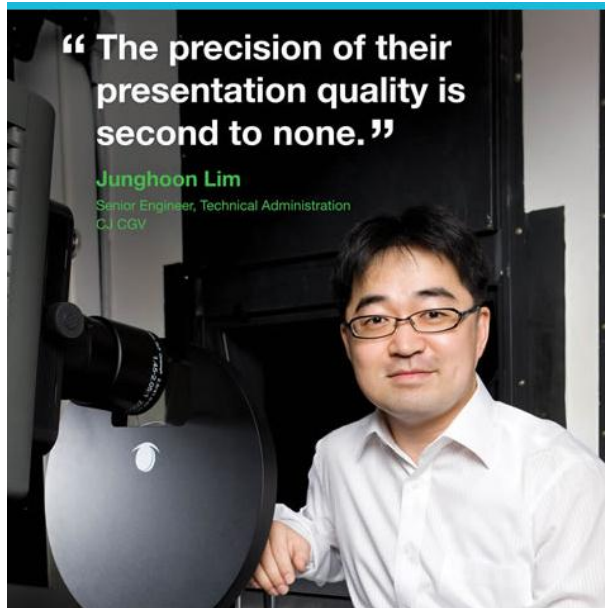
Vice President
Classic Cinemas



**“The precision of their
presentation quality is
second to none.”**

Junghoon Lim

Senior Engineer, Technical Administration
CJ CGV



**“Not worrying about
glasses maintenance
removes a big
operational issue.”**

Justin Ribbons

Chief Executive Officer
Empire Cinemas

