

Lightspeed Design, Inc.

PASSIVE POLARIZATION FOR 3D DIGITAL CINEMA

## Fast, Bright, Reliable... Quality you can Trust.

### Patented in the US, EU, Canada and China





### PASSIVE POLARIZATION FOR 3D DIGITAL CINEMA

DepthQ<sup>®</sup> 3D Passive Polarization products for Digital Cinema consist of our patented *best-in-class* **DepthQ<sup>®</sup> Standard** and our newly-patented high-brightness **DepthQ<sup>®</sup> CineBright™ 3D Light Recycler.** 

FAST

With a powered, symmetrical 50 microsecond switching time between the eyes, both DepthQ<sup>®</sup> 3D products enable the world's shortest dark times - thus easily ensuring bright, low-crosstalk operation.

BRIGHT

RELIABLE

When combined with a silver screen, DepthQ<sup>®</sup> 3D allows your digital cinema projector to display stunning stereoscopic 3D films, viewable using inexpensive industry-standard passive glasses.

Advanced heat protection allows **up to 56,000 lumens** for a spectacular experience on large 3D screens. Novel, internationally patented designs<sup>3</sup> and worldwide intellectual property insurance (CineBright<sup>™</sup>) provide peace of mind. DepthQ<sup>®</sup> 3D is currently installed in over 2750 theaters worldwide, and growing.

**DepthQ® Standard** produces an **optical efficiency of up to 19%**<sup>2</sup> and accepts a throw ratio as wide as .8:1.

**DepthQ® CineBright's** unique and novel design produces an **optical efficiency** of up to 31%<sup>2</sup> which combines with our super-fast liquid crystals to comfortably match or exceed the overall light efficiency of the polarized 3D market share leader. Cinebright CBV2 accepts a throw ratio as wide as 1.17:1 in Scope, and 1.36:1 in Flat, while our new short-throw model Cinebright CBST accepts a throw ratio of 1.13:1 in *both* Scope and Flat.

DepthQ CINEBRIGHT

**○ Depth○** CINEBRIGHT<sup>™</sup>

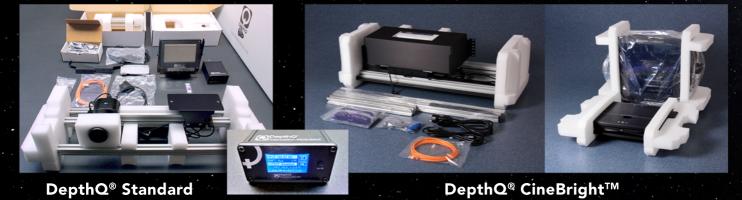
**DepthO** Standard

www.depthq3d.com

# Quality you can Trust.

## Simple to install Solid-state switch NEW patented technologies Embraced worldwide Hollywood approved

DepthQ<sup>®</sup> 3D ships with everything you need to install & deliver spectacular, studio-approved 3D cinema.



**TECHNICAL OVERVIEW<sup>1</sup>** 

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#### DepthQ<sup>®</sup> 3D Technology Common Specifications.

	Technology	Patent Protection <sup>3</sup>	Max Lamp/Laser	Heat Protection	Switch Time	Dark Time	Contrast / Ghost	HFR	Installation Package	Automation	Warranty
	TN High-Speed LC Modulator	US, EU, CA, KR, CN	Up to 56K Lm all Laser compatible	Metallic Pre-Polarizer	50 µsec (symmetrical)	50-350 µs (use fastest available)	> 100:1 in each eye	YES to 240 Hz (and beyond)	Everything Included	YES Auto, External Signal, TCP/IP	5 yr Optical 3 yr Electronic
				1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -				•			
						30,000 L	umens +	20,000	Lumens	15,000	Lumens
		Min Throw Ratio SCOPE	Min Throw Ratio FLAT	Optical Light Efficiency	Min Throw Distance	Max Width 4.5 FL	Max Width 6.0 FL	Max Width 4.5 FL	Max Width 6.0 FL	Max Width 4.5 FL	Max Width 6.0 FL
epthQ <sup>®</sup> Standard											
DPN	1-L-DCI/EL3G	.8 : 1	.8 : 1	Up to	None	19.2 m +	16.6 m +	15.6 m	13.6 m	13.6 m	11.7 m
				19% <sup>2</sup>		(62.9 ft +)	(54.4 ft +)	(51.3 ft)	(44.4 ft)	(44.4 ft)	(38.5 ft)
pthQ	CineBright			11		04.0	0.1	10.0	17.0	47.0	110
M-CB	V2-DCI/EL3G	1.17 : 1	1.36 : 1	Up to	11 m	24.3 m +	21 m +	19.8 m	17.2 m	17.2 m	14.9 m
	ST-DCI/EL3G		1.13 : 1	.13 : 1 31% <sup>2</sup>	(36.1 ft)	(79.7 ft +)	(69 ft +)	(65.1 ft)	(56.4 ft)	(56.4 ft)	(48.8 ft)

Our Maximum Screen Width calculations are realistic targets which include additional typical losses, such as projector dark time, port glass and 3D color correction. They assume a 2.4 gain screen, 25% lamp brightness headroom, use of industry-standard inexpensive 3D glasses, and are cross-referenced against both Christie and Barco calculators.

### TECHNOLOGY COMPARISONS

	DepthQ <sup>®</sup> 3D	Pi-cell Liquid Crystal	Spinning Polarizer		
Switching Time (100%)	50 microseconds	>500 microseconds	1,157 microseconds @ 144FPS		
Possibility for Excess Ghost	No, faster than fastest projector dark time	Yes, slower than fastest projector dark time	Yes, slower than fastest projector dark time		
Pre-Polarizer	YES, Metal on Glass	NO	ΝΟ		
Uses Moving Parts to Switch	NO	NO	YES		
<b>Optimized for High Frame Rates</b>	YES	NO	NO		



<sup>1</sup> Specifications are subject to change <sup>2</sup> Your optical light efficiency will vary based on 3D glass manufacturer's product specifications <sup>3</sup> US8023052 B1, US8184215 B2, US9494805 B2, US9693044 B2, EP2959341 B1, EP2606398 A4, CA2907565 C, CN104272182 B, CN102725682 B, KR20130097158 A



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