

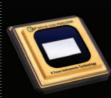
# HIGH PERFORMANCE PROJECTORS <sup>III</sup>

www.projectiondesign.com

# Action! model one mk II and mk III home theatre projectors

The Action! series is a dedicated range of home theatre projectors from projectiondesign. The aim is to provide the best possible home theatre experience by providing image quality and integration possibilities in small and unobtrusive packages – easily fitting into most modern home theatres. With year long experience in designing projectors and display systems, the Action! model one range is the culmination of projectiondesign technology, passion and enthusiasm. A team of dedicated enthusiasts bring you the Action! series.





#### Single chip DLP<sup>™</sup> technology - now with HD2+ DC3<sup>™</sup> advancement

All Action! projectors use single chip DLP<sup>™</sup> (Digital Light Processing<sup>™</sup>) technology from Texas Instruments®. The new model one mk III uses DarkChip3<sup>™</sup> technology, the latest revision DMD<sup>™</sup> (Digital Micromirror Device) providing even higher contrast and better colour saturation than ever before, and surpassers any other microdisplay for home theatre use. DLP<sup>™</sup> technology features an unmatched combination of image dynamics and visual resolution, as well as perfect colour uniformity. The Action! model one mk II uses the high resolution HD2+ DC2<sup>™</sup> DMD<sup>™</sup>. Both models feature extremely high contrast and excellent visual clarity, for the best possible video performance.



#### High performance optics improve image fidelity

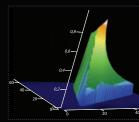
The new, 7-segment colour wheel dramatically improves colour fidelity and low level resolution. Darkly produced movie scenes finally come to their right with full grey scale reproduction all the way down to the deepest blacks, enabling a much higher visible colour resolution than ever before. Colour reproduction is enhanced over other projectors with an extremely large gamut, covering all colour spaces and video standards. It makes sure that you get deeply saturated and truly natural colours.

#### Digital Dynamic Concept – unique projectiondesign thinking

One of the most important aspects projectors fail at time and time again is reproducing the wide dynamic contents of a movie. From the deepest blacks to the whitest whites, projectiondesign believes in providing both impacting black and white levels at the same time. This is why we have invented the Digital Dynamic Concept – DDC. By allowing the user to easily adjust output level through Dynamic Black Level Adjust, enabling Dynamic Contrast enhancement and making available a wide range of gamma curves, projectiondesign enables – for the first time – a projector that can be adapted to any size screen with the same impact as the theatre.

#### High contrast optical Field Lens architecture

Exclusivly using field lens optical architectures in the Action! model one and model zero five provides a much higher combination of brightness and contrast than most competing projector designs. By not using a prism in the light path, light scatter is prevented to create highly contrasted images, typically double that of competing prism based projectors. This ensures highly dynamic images when watching for instance dark or mixed exposure movies.



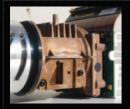
**by**FAROUDJA

#### Computer modelled 3D gamma correction

The eve attempts to perceive colours and video displayed from a projector as if they were real life. To get the highest level of colour fidelity, we model the gamma transfer curves by computer. By calculating display properties, eye colour- and grevscale perception and video format properties in a single equation, we make sure the output colour on the screen is a close to real life as possible

### High performance video processing

All Action! projectors feature high precision components and video processing circuitry. All analogue video inputs feature full 10-bit A/D conversion and processing. and video sources are enhanced using the highly acclaimed and patented DCDi™ progressive scan engine by Faroudia®, with the FLI2310 processor. This provides full film and video mode processing, performs 3:2 and 2:2 pull down, and deploys several image enhancing filters such as noise reduction and motion detection and compensation. For HTPC users, all internal video processing is omitted when utilizing either the DVI or VGA input in 1:1 pixel mapping mode (at native resolution).



# **SOA - Sealed Optical Architecture**

The Action! series is delivered with a Sealed Optical Architecture, preventing dust and smoke from entering and contaminating the core optical engine. A long and trouble free life of the projector is ensured, with practically no maintenance needs.



# Unique UniBoard video processing

All video signal processing is kept on a single printed circuit board. This reduces electrical noise, keeps signal paths short, and introduces no loss or electrical interference through the use of connector cables between boards. Many high end projectors use very high grade components and boards, yet connect them with cheap multi lead cables, acting as antennas and picking up noise. All Action! signal processing boards use gold plated signal paths and connectors for optimum connection and purity.





# HDMI compatible DVI-D interface with HDCP

Ensuring full compatibility with HDCP (High-bandwidth Digital Content Protection) copy protected sources, such as DVD-players with HDMI or DVI outputs, HD set top boxes and digital satellite tuners, the Action! series is equipped with a DVI-D input. Supporting very high bandwidth, it accepts input sources up to fully uncompressed HDTV resolutions. Utilizing the DVI input keeps the signal in the digital domain digital at all times, provides a superior image over analogue connections in terms of stability, sharpness and colour fidelity, and is totally future proof.

# Optimum Light Recovery optical assembly

The Action! series features proprietary Optimum Light Recovery technology, to make sure as much as possible of the pristine light from the lamp enters into the optical path, and can reproduce an image as dynamic as possible. With proprietary design lenses and optical components, light is collected and formatted for optimum usage. This provides the most dynamic projected image available anywhere.

# Fully decoupled sub chassis

In order to reduce operating noise to a minimum, all moving mechanical parts are fully decoupled from the main magnesium chassis. Using a visco-elastic rubber material for optimum shock and vibration absorption, parts' movement is not interacting with the projector to create unwanted noise and resonances. Much like in a car's motor suspension, this is used to suspend all of the individually controlled fans, as well as the colour wheel, which spins at speeds up to 9,000 rpm.





120mm





278mm

244mm

278mm





# Typical image sizes Action! model one mkll & mk III

Viewing Area - H x W		Screen Diagonal		Projection Distance (to lens in cm / in)					Offset
				standard zoom lens		long throw zoom lens*		wide angle*	
in	cm	in	cm	min	max	min	max		cm / in
63 x 35.5	160 x 90	72	184	280 / 110	360 / 142	400 / 157	560 / 220	160 / 63	14 / 5.5
72 x 40.5	182 x 103	82	208	319 / 126	410 / 161	455 / 179	637 / 251	182 / 72	16 / 6.3
80 x 45	203 x 114	92	234	355 / 140	457 / 180	507 / 200	711 / 280	203 / 80	18 / 7.1
87 x 49	221 x 125	100	254	386 / 152	497 / 196	552 / 217	774 / 305	221 / 87	20 / 7.9
92 x 52	234 x 132	106	269	410 / 161	527 / 207	585 / 230	820 / 323	234 / 92	21 / 8.3
96 x 54	244 x 137	110	280	427 / 168	549 / 216	610 / 240	854 / 336	244 / 96	22 / 8.7
104 x 58	264 x 147	119	302	462 / 182	594 / 234	660 / 260	924 / 364	264 / 104	24 / 9.5
Accuracy: +/- 5% 'joptional									



All brands and trade names are the property of their respective owners. Specifications subject to change without prior notice. All values are typical and may vary.

model one mk ll	specifications	model one mk III
single chip HD2+ DC2™ DLP™ technology	display concept	single chip HD2+ DC3™ DLP™ technology
280 x 720 resolution (16:9 wide screen) 7-segment, 5-speed NDG RGBRGBG colour wheel		1280 x 720 resolution (16:9 wide screen) 7-segment, 5-speed NDG RGBRGBG colour wheel
prism-less Field Lens optical architecture		prism-less Field Lens optical architecture
1080i, 720p, 576i/p, 480i/p,	input signal compatibility	1080i, 720p, 576i/p, 480i/p,
PAL, SECAM, NTSC 3.58/4.43		PAL, SECAM, NTSC 3.58/4.43
digital and analogue RGB		digital and analogue RGB
1:1 pixel mapping and 48 – 62 Hz fully frame synchronous graphics display from HTPC		1:1 pixel mapping and 48 – 62 Hz fully frame synchronous graphics display from HTPC
1.3x manual zoom all glass lens	projection lens	1.3x manual zoom all glass lens
1.75 - 2.25 : 1 throw ratio		1.75 - 2.25 : 1 throw ratio
10-bit ADC	video processing	10-bit ADC
DCDi™ by Faroudja®, FLI2310		DCDi™ by Faroudja® FLI2310
3000 : 1 (typical ,max)	contrast	4000 : 1 (typical max)
500 - 1000 continuously adjustable	brightness	500 – 1000 continuously adjustable
250 W UHP™, up to 4000 hours		250 W UHP™, up to 4000 hours
YPBPR x2 component video (RCAx3)	connectivity	YPBPR x2 component video (RCAx3)
S-Video (DIN)		S-Video (DIN)
Video (RCA)		Video (RCA)
DVI-D (HDCP compatible)		DVI-D (HDCP compatible)
VGA (15-pin HDDSUB)		VGA
RS232 (9-pin DSUB)	control	RS232 (9-pin female DSUB)
12V trigger x2 (screen drop, aspect ratio) (3.5mm mini jack)		12V trigger x2 (screen drop, aspect ratio) (3.5mm mini jack)
IR repeater input (3.5mm mini jack)		IR repeater input (3.5mm mini jack)
USB		USB
front / rear / tabletop / ceiling	projection modes	front / rear / tabletop / ceiling
28 dB(A) (typical in room, 20°C/68°F, sea level)	operating noise level	28 dB(A) (typical in room, 20°C/68°F, sea level)
3.0kg / 6.5 lbs.	weight and dimensions	3.0kg / 6.5 lbs.
244 x 278 x 88 mm / 9.6 x 10.9 x 3.5 in (dwh)		244 x 278 x 88 mm / 9.6 x 10.9 x 3.5 in (dwh)
100 – 240VAC, 50/60Hz, +/-10%	power	100 – 240VAC, 50/60Hz, +/-10%
350W max power consumption		350W max power consumption
CE, CSA "C/US", FCC Class B	conformances	CE, CSA "C/US", FCC Class B
IR remote control, installation cable cover	delivered accessories	IR remote control, installation cable cover
optional 1 : 1 and 2.5 - 3.5 : 1 lenses	other	optional 1 : 1 and 2.5 - 3.5 : 1 lenses
maranello blue, pearl white, custom colours upon request	available colours	maranello blue, pearl white, custom colours upon request





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