Current 3D Technology

- Anaglyph/Color-Code 3D releases on certain TV broadcasts and Blu-Ray.
- LCD and Plasma 3D displays above 80” will consume over 500 to 1,500 watts.
- Prices anticipated to be well over $50,000 in this size category.
- Most TVs based on active shutter glasses of 60 to 120Hz alternating images per eye.
- Active glasses cost $50 to $150, require batteries and subject to unexpected breakdowns.
- Could generate another false start for 3D in the home and set industry back again.
The HDI Difference

- **COMFORT** – L/R images delivered to both eyes simultaneously for smooth viewing.
- **CLARITY** – Dual 1920 x 1080p LCOS imagers at 360 color frames per second in 3D mode.
- **COLOR** – Superior color gamut by pure LASER wavelength illumination.
- **COMPLIANCE** – Less than 200 watts power consumption for 100”; meets CA 2013 EE Standards.
- **COST** – 60% lower street price than existing plasma televisions for 100” displays.
- **CONSUMER AVAILABILITY** – As early as 2010 and volume production ramping in 2011.

Efficient RGB Laser Sources

Dual 1080p LCOS Imagers

Extended Color Space
HDI 3DTV Markets

• ENTERTAINMENT – 2D/3D High-end Home Theatre, Location Based Entertainment, 3D Video Gaming.
• ADVERTISING – Digital Signage, Kiosk Displays.
• EDUCATION/TRAINING – Medical/University Research, Stereo Microscopy, Molecular Modeling.
• INDUSTRIAL/CAD/CAM – Virtual Prototyping, Mining/Oil Exploration, Engineering Construction.

3D Gaming w/Polarized Glasses  Digital Signage  Molecular Visualization
HDI Products

- **100” HD Laser-3DTV** – Rear Prism Projection Technology, 10” deep Cabinet, Wall or Table Mount.
- **Laser 3D Front Projector** – RGB Fiber Coupled, >120” Screen Sizes, Circular Polarized, Scalable Lumens.
HDI Product Roadmap

Concept Demonstration
HD1
Qualification/Reliability
CM
Manufacturing (Mass Production)

2008
H2
H1
H2
H1
2009
H2
H1
2010
H2
H1
2011
H2
H1
2012
H2

2D/3D Front Projector
100” Laser 3DTV
Digital Cinema
## HDI IP Summary

<table>
<thead>
<tr>
<th>FILE DATE</th>
<th>PATENT TITLE</th>
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<tbody>
<tr>
<td>13-Feb-06</td>
<td>Methods and Systems for Multiple Primary Color Display</td>
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<tr>
<td>10-Jan-00</td>
<td>Method and Apparatus for Enhanced Performance Liquid Crystal Displays</td>
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<td>20-May-03</td>
<td>Substrate Cell-Gap Compensation Apparatus and Method</td>
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<td>1-Jul-07</td>
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<td>30-Jan-98</td>
<td>Method and Apparatus for Forming Optical Gratings</td>
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<td>4-Mar-98</td>
<td>Resonant Driver Apparatus and Method</td>
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<td>Thin Cell Microdisplays with Optimum Optical Properties</td>
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<td>3-Jul-08</td>
<td>Methods and System for Reducing Color Crosstalk in Single Panel Liquid Crystal Displays</td>
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<td>27-Jun-08</td>
<td>Methods and System for Color Management in Display Systems</td>
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<td>27-Jun-08</td>
<td>Methods and System for Brightness Enhancement in Displays</td>
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<td>13-Nov-07</td>
<td>Anti-Speckling laser Rear-Projection Screen Structure and Methodology</td>
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<td>24-Sep-08</td>
<td>Peripheral Projection Patent</td>
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<td>16-Nov-06</td>
<td>Laser Projection Screen Structure</td>
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<td>9-Feb-07</td>
<td>Methods and Systems of Pixel Illumination</td>
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**Projection and LCoS Chip**

**Rear Prism Screen**

**Laser Illumination**
## HDI IP Value

<table>
<thead>
<tr>
<th>Technology</th>
<th>Source</th>
<th>$ Invested in Development</th>
<th>IP Value</th>
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<tr>
<td>Microdisplay LCOS Chip</td>
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<tr>
<td>Optical Module</td>
<td>HDI</td>
<td>$5M</td>
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Thanks!