

# Creating New Vision with 3D Glasses

April. 2010

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# 1. CV of Rae Hwan, Lee

# CV of Rae Hwan, Lee



**Company: Accupix Inc.**

**Name: Rae Hwan, Lee**

**Title: Director**

- ◆ Over 22 years experiences in the area of audio / video, multimedia technology.
- ◆ Before joined Samsung Electronics, received BS degree in Electrical Engineering from ChungAng University Korea.
- ◆ During the work in Samsung Electronics (1985~1999), he is an expert on the field of playback disk media and has world top class level of technology as a chief Engineer.  
Developed any kind of round shape things such as CDP, DVD, and CD-RW in the media technology fields.
- ◆ As a result of his experience in Samsung Electronics, found Reigncom (well known as iriver) as a Vice President (1999~2006) and to conquer the global MP3 markets which is a landmark in the history of the MP3 industry.  
Manage all the fields, such as, product planning, research and development, sales and marketing, purchasing and procurement, production and etc.

# CV of Rae Hwan, Lee



- ◆ Interested in educational, LED industry as well as 3D TV Glasses to expand business field.

Found atree Co., Ltd. (2006~), to participate in E-learning business such as manufacturing electronic dictionary devices and e-learning contents service business as well as LED with IT convergence products.

Established Wavesquare Inc. (2006~), to focus on LED business industry to expand his business more broadly.

Recently involved in 3D TV Glasses and Head Mounted Display (HMD) industry.

- ◆ Awards

- Samsung Group Technology Award (Won 2 times awards)  
(Recognized within Samsung Group as an expert on Technology)

- IR52 Jang Young Shil Award (1994) by Korea Industrial Technology Association.  
(Honor and encourage outstanding accomplishments in technologically innovative activities of private companies)

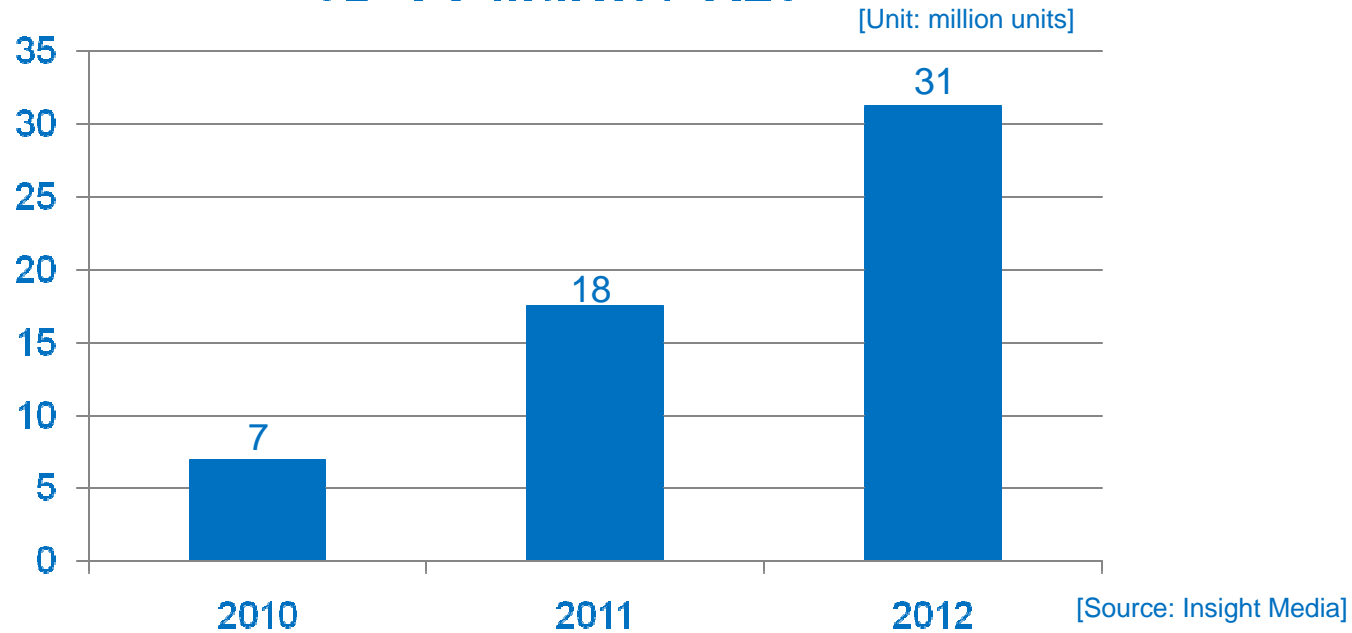
## **2. 3D TV Market Size**

# 3D TV MARKET OVERVIEW IN KOREA



- Samsung Electronics released Shutter (Active) type LED 3D TV on Feb. 2010.
- LG Electronics released polarization (Passive) type LCD 3D TV on Aug. 2009 and Shutter (Active) type LED 3D TV on Mar. 2010.
- Public broadcasting, cable and Satellite broadcasting will air Full HD 3D TV on Oct. 2010 in Korea.
- Satellite broadcasting, SkyLife (Pay cable TV in Korea), launched 24 hours of 3D broadcasting on Jan. 1. 2010.

## 3D TV Market Size



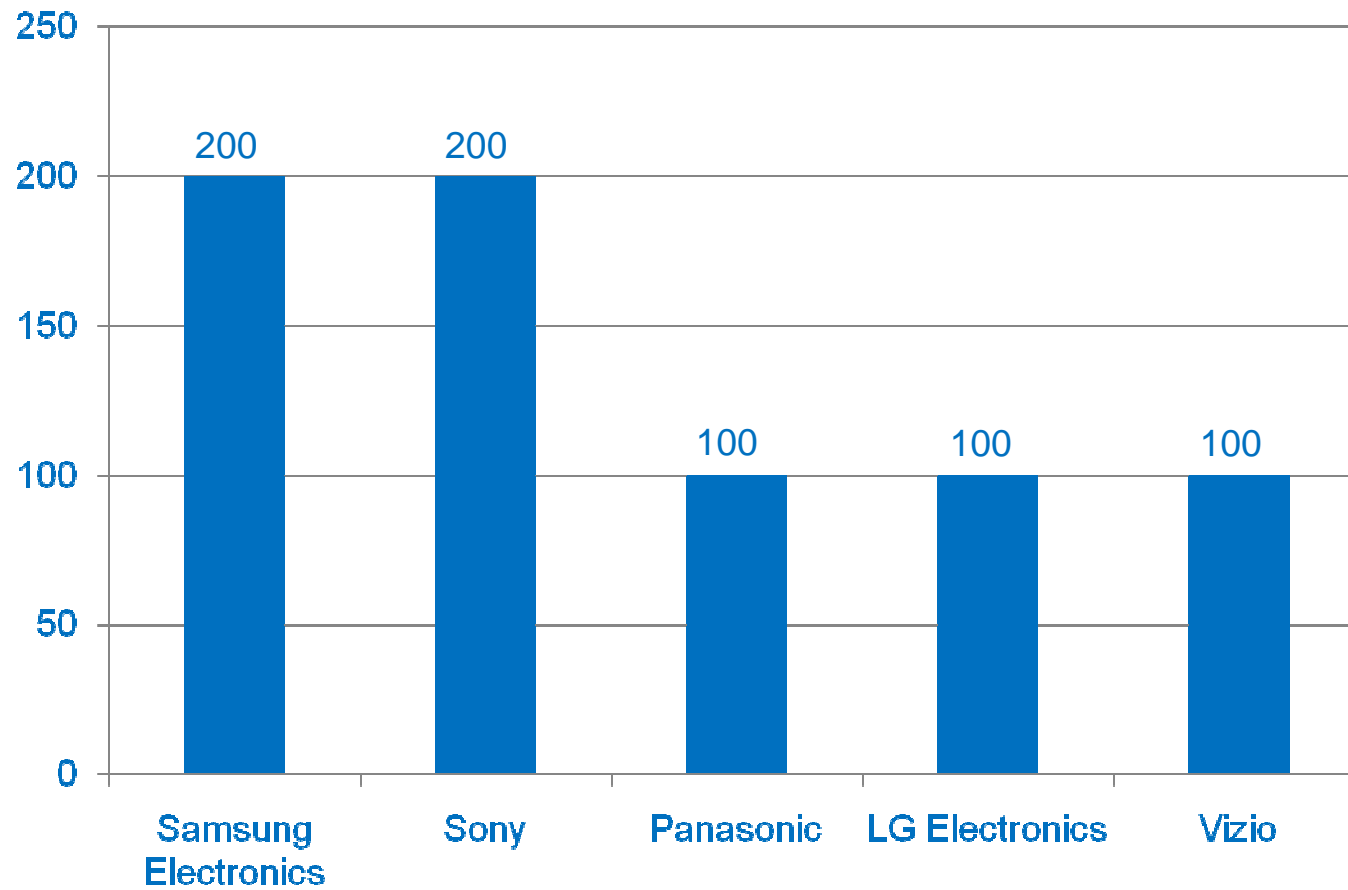
- **Samsung Electronics: 2million units in 2010, 10million units in 2011.**
- **LG Electronics: 1million units in 2010, 4million units in 2011.**
- **Hana Daetoo Securities forecasts over 30million of 3D TV sell in 2011.**
- **Global 3D TV markets will grow from 7 million units (USD 8.8 billion) in 2010 to 18 million units (USD 20 billion) in 2011.** [Source: Dec. 28. 2009 Seoul Economy]



# MARKET FORECAST



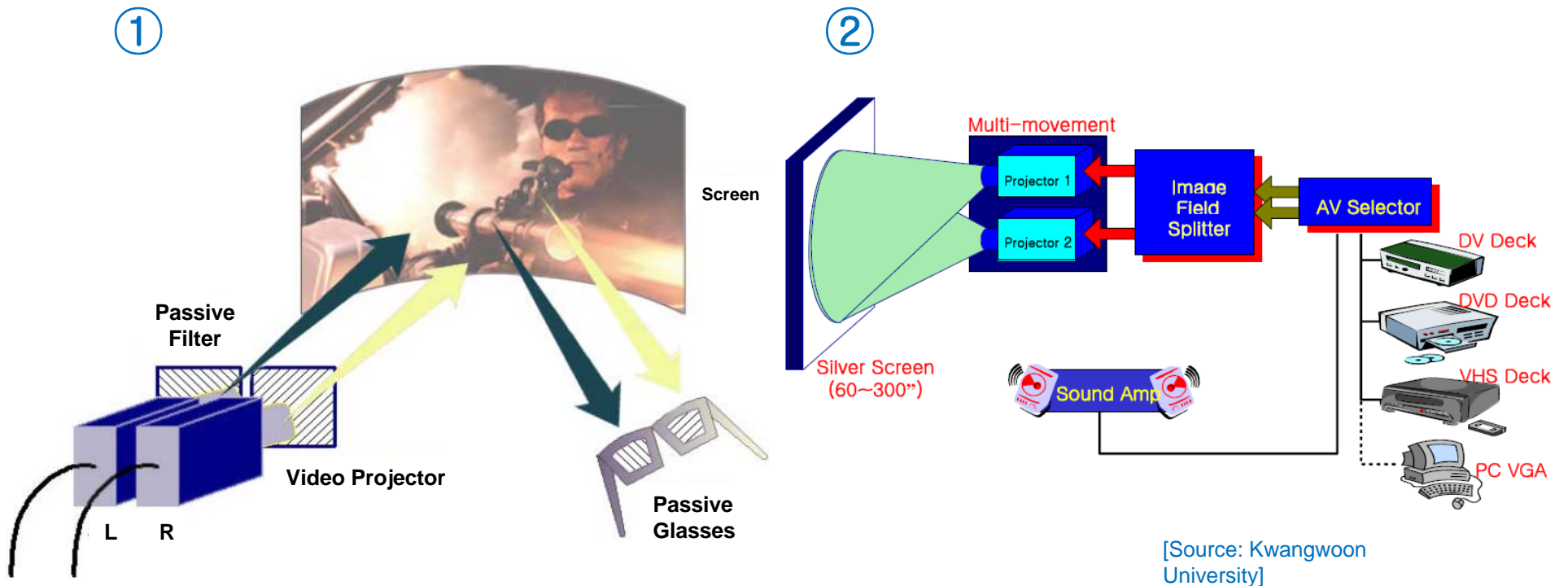
[Unit: 10K units] **Expecting 3D TV Shipment Volume by Maker in 2010**



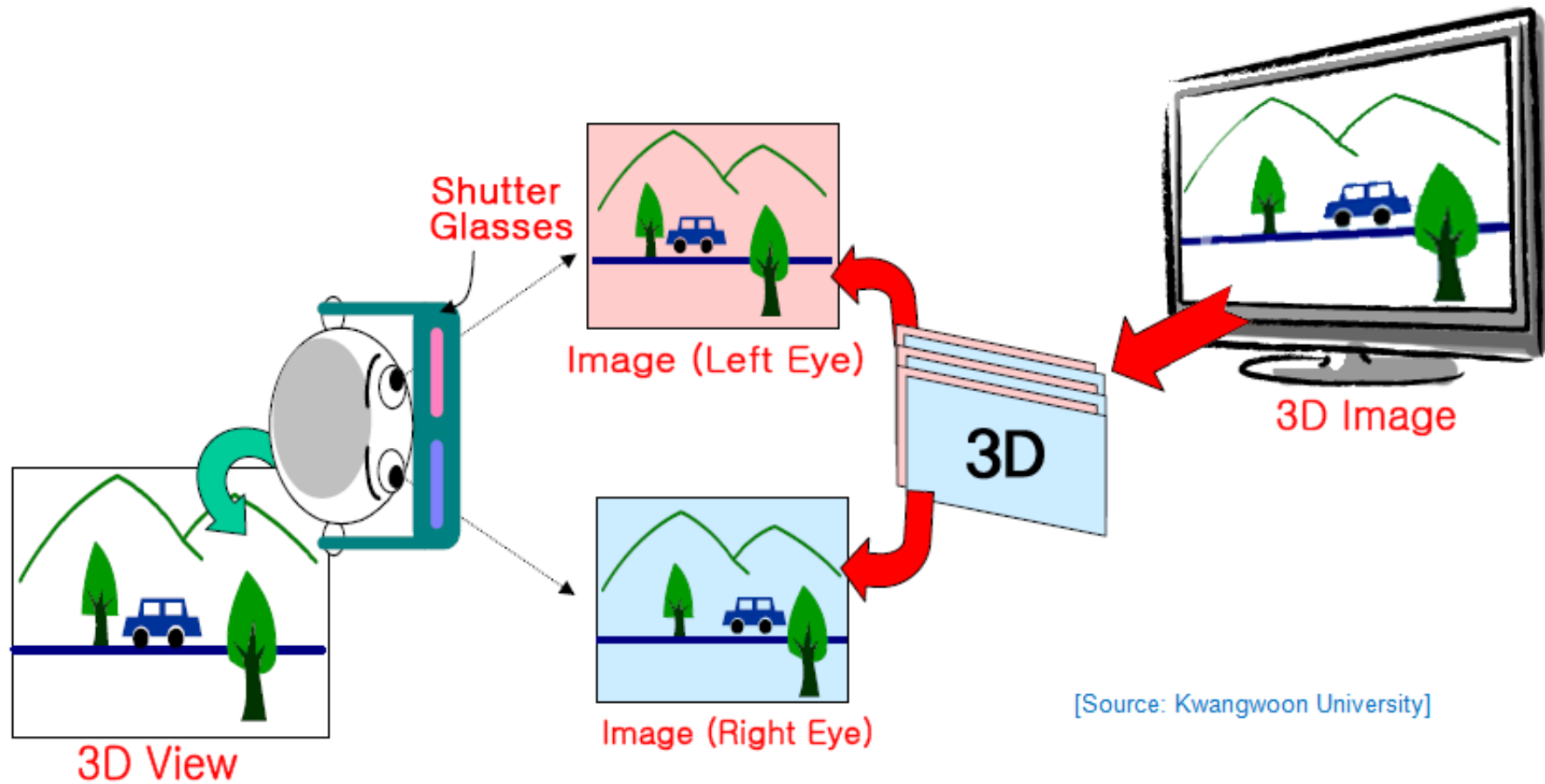
### **3. *How 3D TV Glasses Works?***

# 3D GLASSES

## Passive Glasses type 3D Display



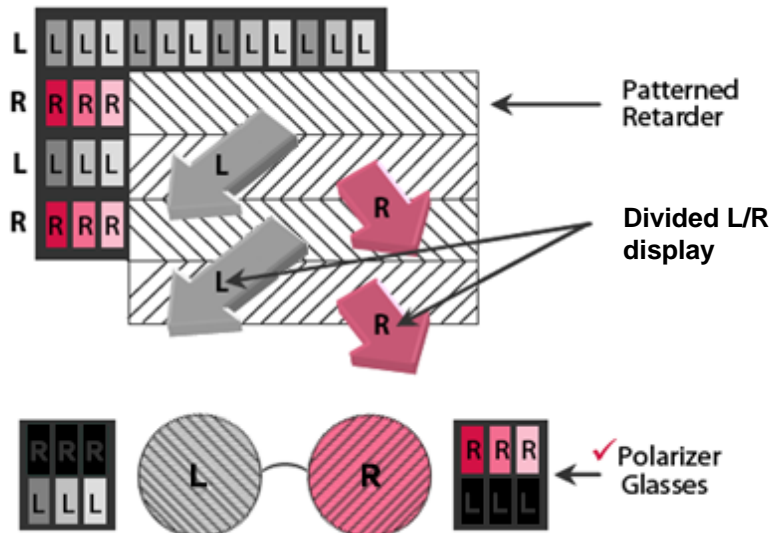
## Shutter Glasses type 3D Display



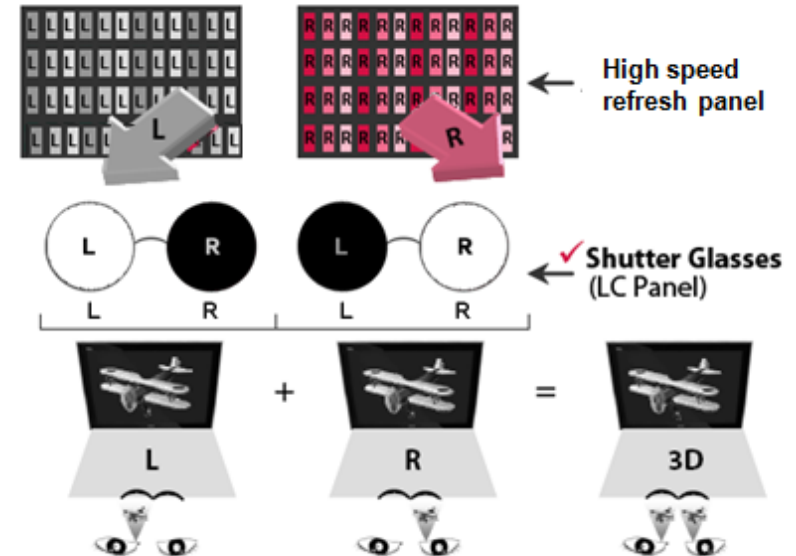
[Source: Kwangwoon University]

# 3D GLASSES COMPARISON

## - Passive Glasses -



## - Shutter Glasses -



<b>Strength</b>	<ul style="list-style-type: none"> <li>- Low cost (\$5~8) / Light weight</li> <li>- High brightness (2D/3D)</li> <li>- Good 3D cross talk</li> </ul>
<b>Weakness</b>	<ul style="list-style-type: none"> <li>- Resolution &amp; brightness decrease to half</li> <li>- Narrow 3D sight</li> <li>- Glasses coadunate process needed</li> </ul>

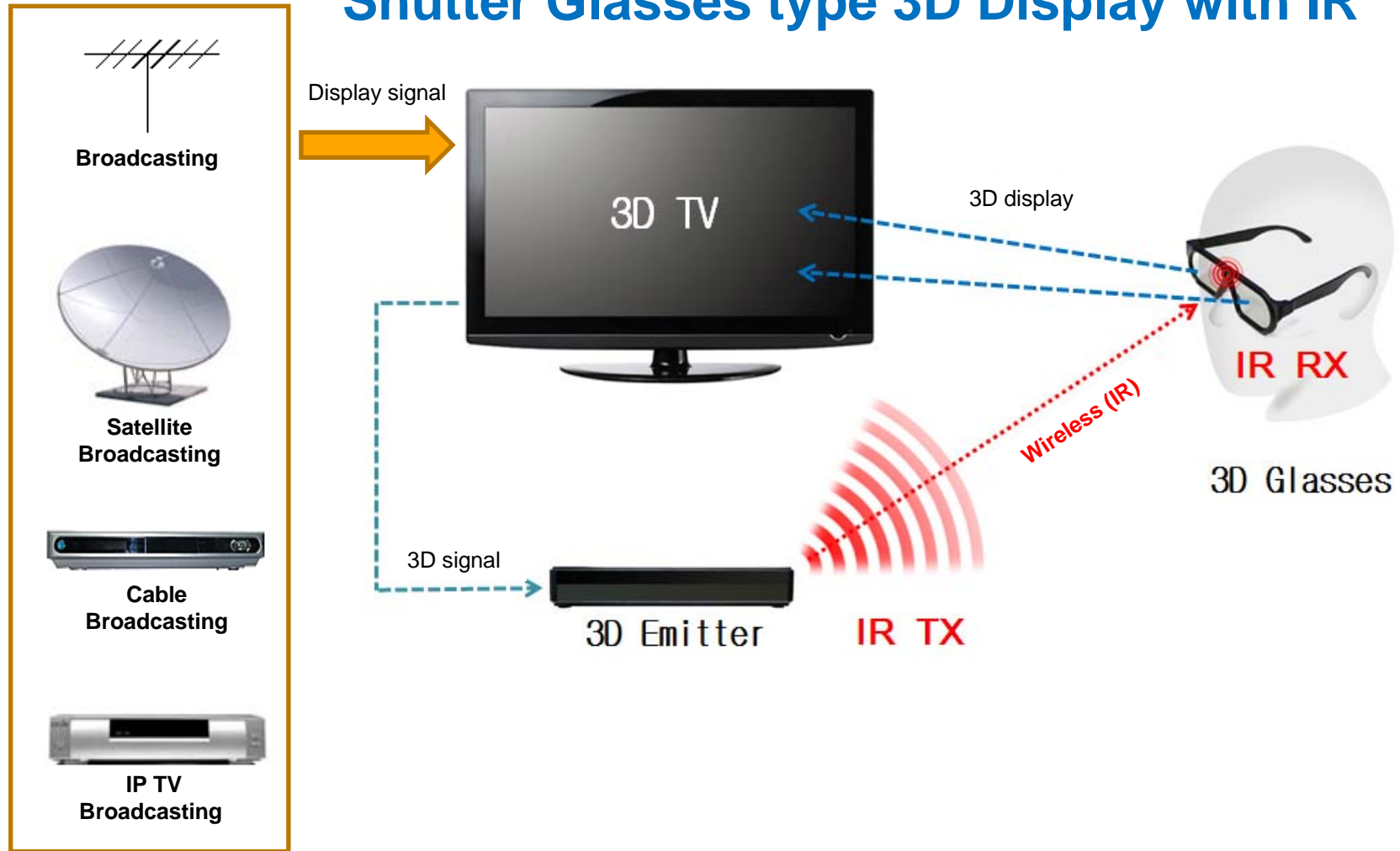
<b>Strength</b>	<ul style="list-style-type: none"> <li>- No brightness decrease</li> <li>- Low cost for 3D panel</li> <li>- No need glasses coadunate process</li> <li>- 2D/3D panel co-use (240Hz)</li> </ul>
<b>Weakness</b>	<ul style="list-style-type: none"> <li>- High cost (\$50) with IR / battery</li> <li>- Need high response speed</li> <li>- Flicker may occur by environment</li> </ul>

[Source: Hana Daetoo Securities]

# 3D SHUTTER GLASSES



## Shutter Glasses type 3D Display with IR



**THANK  
YOU!**

**ACCUPIX**