

BenQ Digital Display Technology

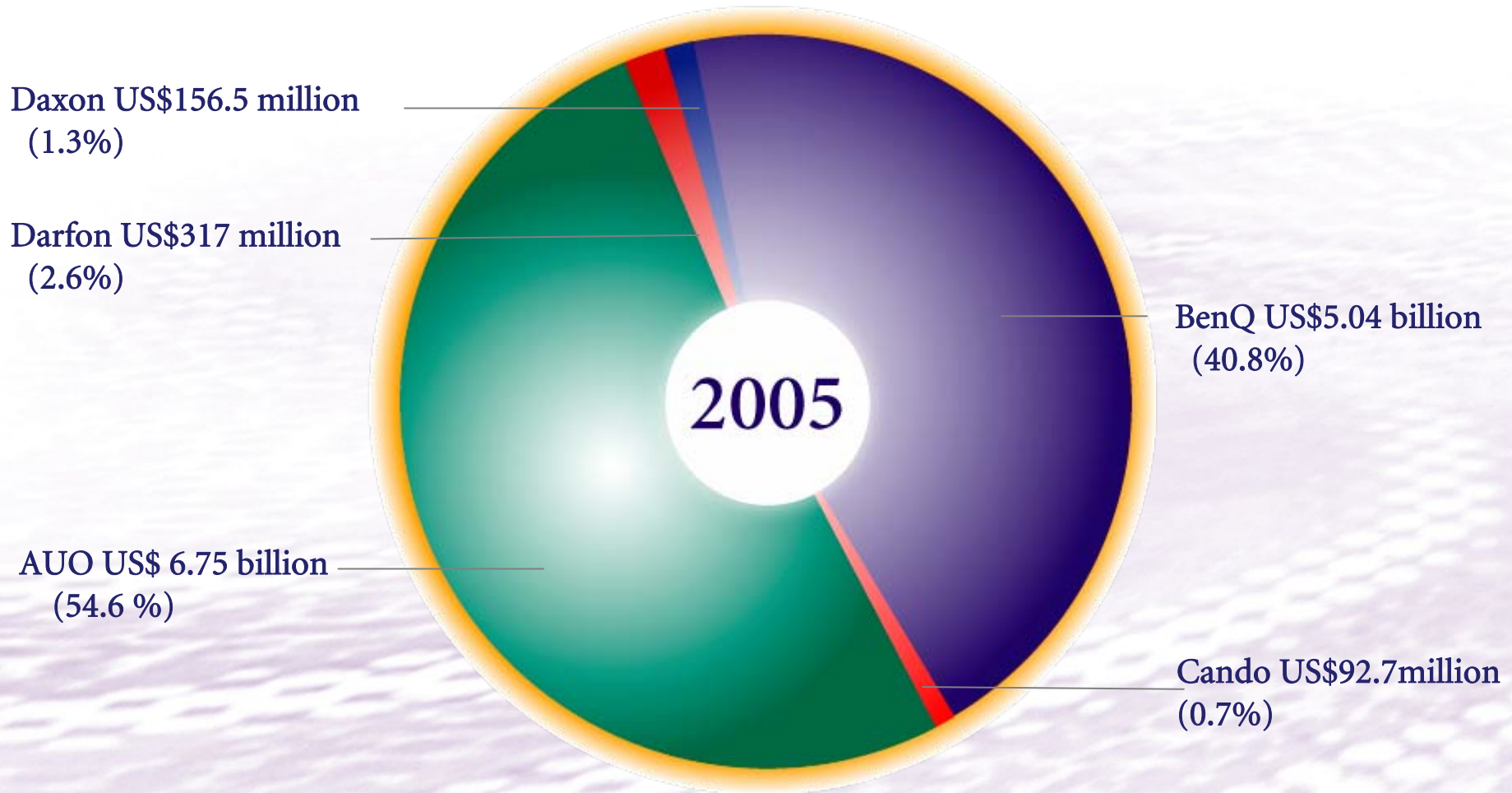
BenQ

BenQ 그룹 - 10개 자회사



BenQ 그룹 매출

2005 그룹 매출 : 12조 3천6백억



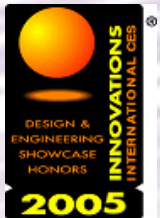
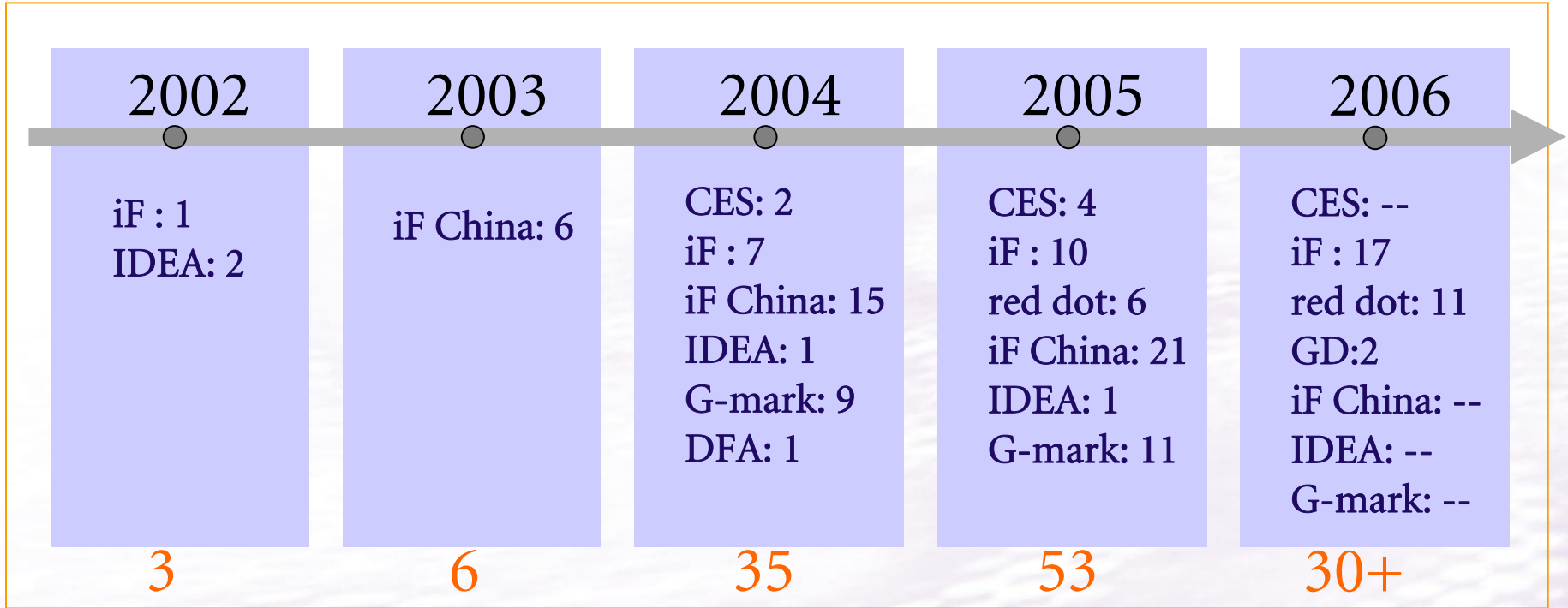
BenQ 개요



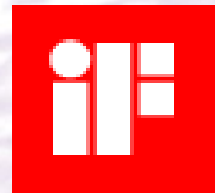
- 1984년 설립
- 회장 : K.Y. Lee
- 2005 매출:
 - BenQ Corporation 5조원
 - BenQ Group 12조원
- 지사현황
 - 세계 72개 지사
- 직원수 (April 2006):
 - BenQ : 2만명
 - BenQ Group : 6만명
- BenQ Business:
 - 컴퓨팅 Computing
 - 커뮤니케이션 Communications
 - 소비자 가전 Consumer Electronics
- IPO (Taiwan): 1996

제품 디자인 수상

127개 제품 국제 디자인상 수상(2006년 6월)



red dot

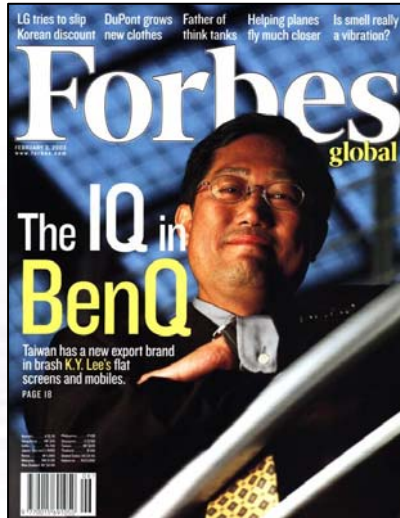


GOD DESIGN

미디어 속의 BenQ



2004년 7월
 핫 디자인
 BenQ FP783 LCD
 모니터는 “IDEA
 어워드”에서 동상을
 수상했으며 비즈니스
 위크지 커버에 랭크



2003년 2월
 포브스 글로벌 잡지
 “The IQ in BenQ”



2002, 2003년 6월
 비즈니스 위크
 BenQ 연속으로
 “100대 IT
 기업”으로 랭크



2005년 7월 CEO
 표지 및 커버 스토리
 “세계 IT 시장에
 BenQ=Enjoyment
 확실히 각인!”

BenQ

레알마드리드 공식 스폰서

Official
Sponsor



Benq

국제 전시회 및 스폰



CeBIT



CES



UEFA EURO 스폰서

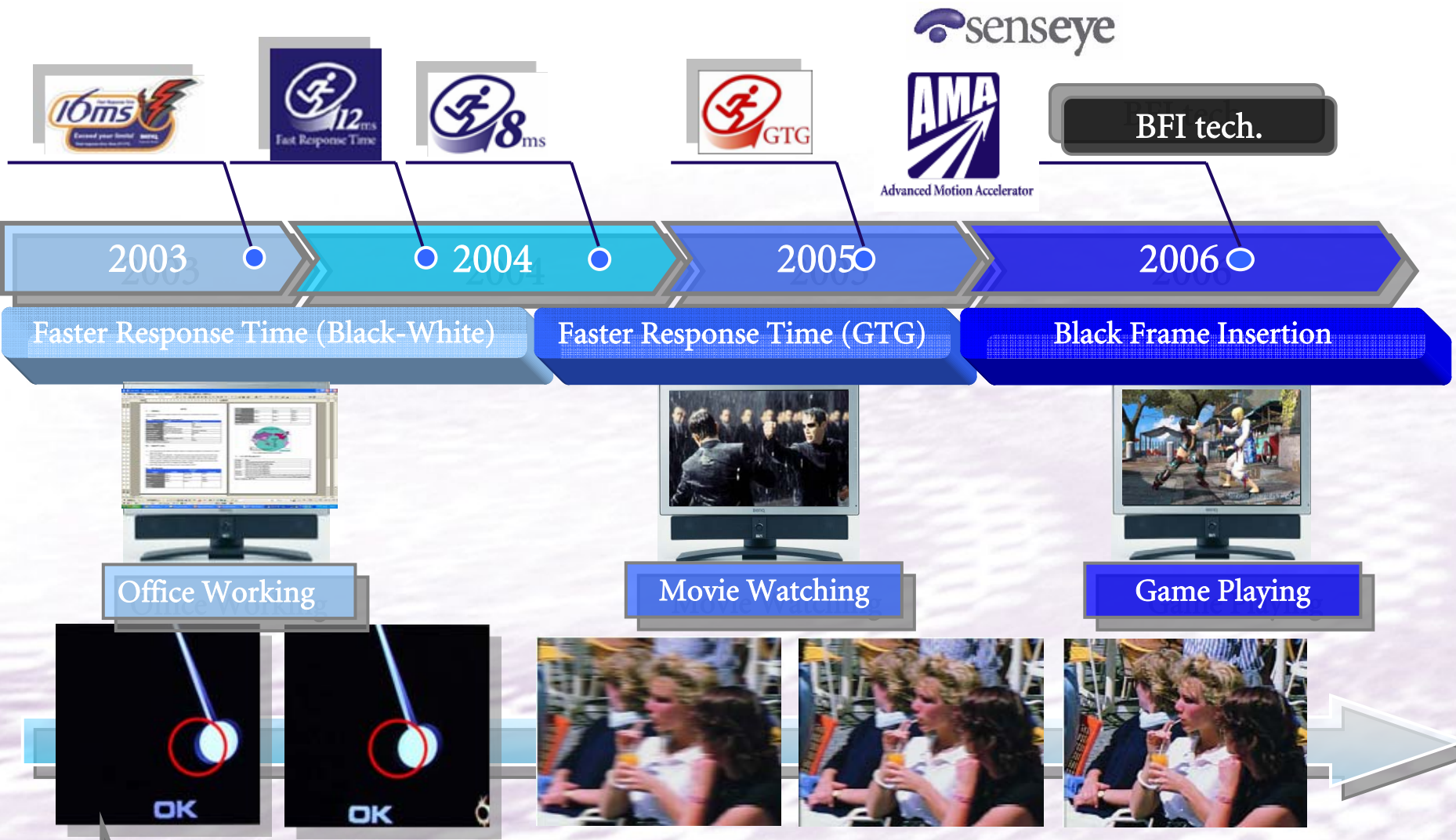


Computex

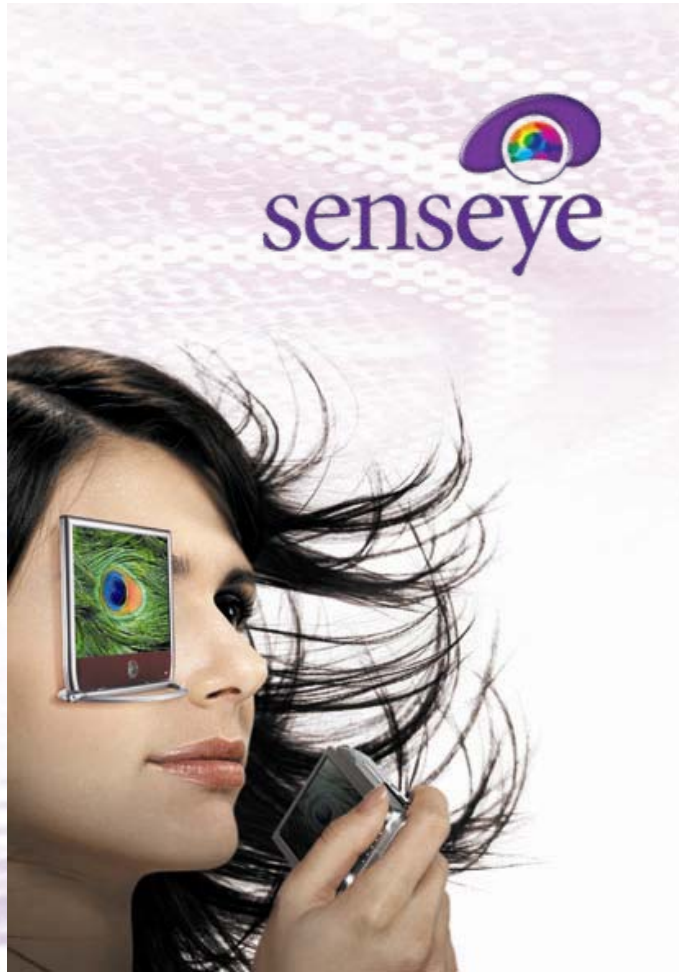
LCDM Technology

디스플레이 기술 선도 기업

BenQ 2006



BenQ LCD 모니터는 최상의 화질을 제공해드립니다.



Individually adjust the performance of the green



Adjust to the most natural and flourescent skin tone

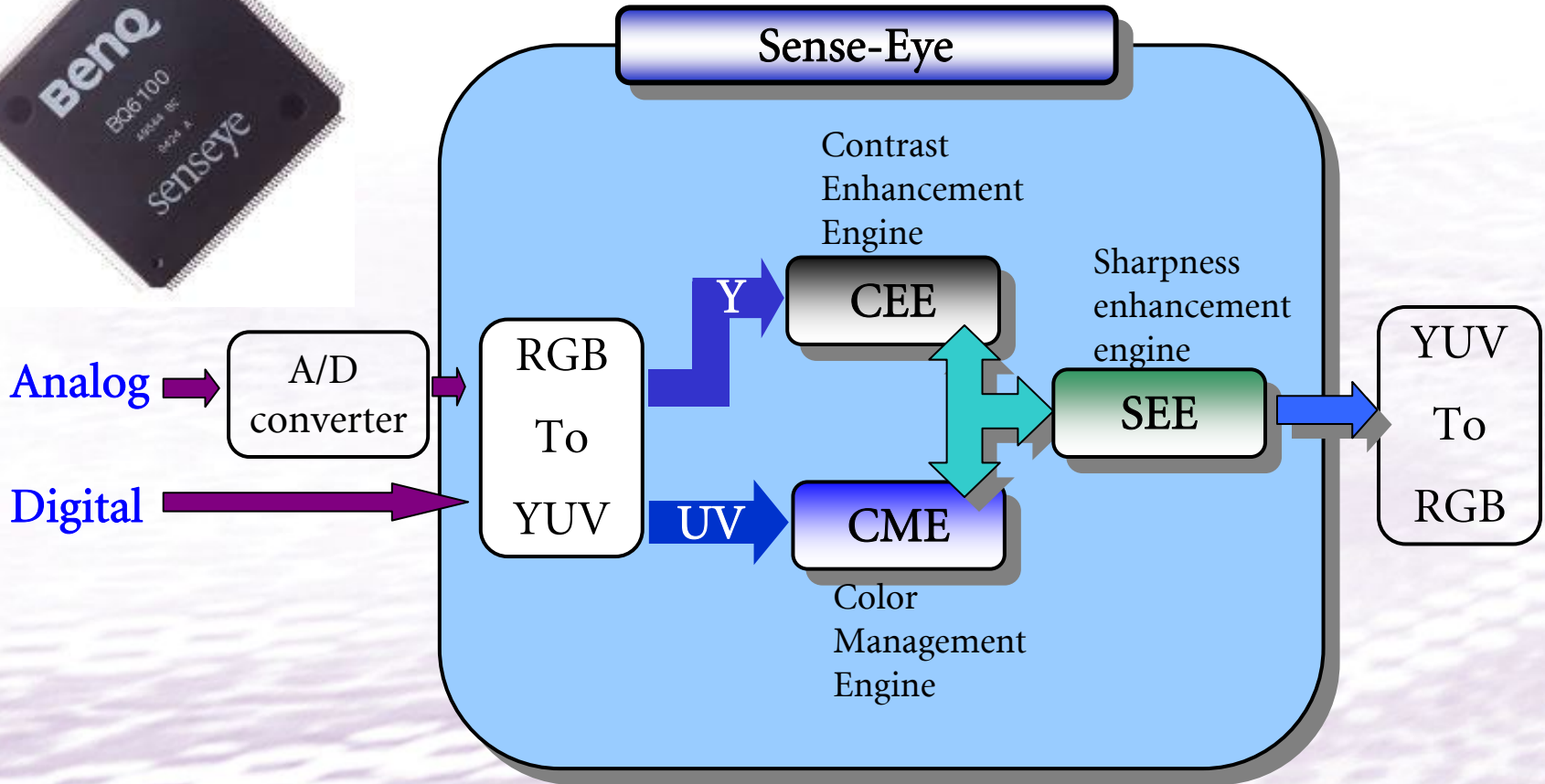


Individually adjust the performance of the red



Individually adjust the performance of the blue

A. Senseye 작동 원리



A. Senseye 기술의 이미지 개선



어두운 부분이 밝게 보임



어두운 부분은 더욱 어둡게 보정



어두운 부분은 더 어둡게, 밝은 부분은 더욱 밝게

전등부분의 명암비 왜곡

전등부분이 더욱 밝게 보정



A. Senseye 기술의 이미지 개선



보정된 붉은색 이외의 다른 색상은 영향을 받지 않음

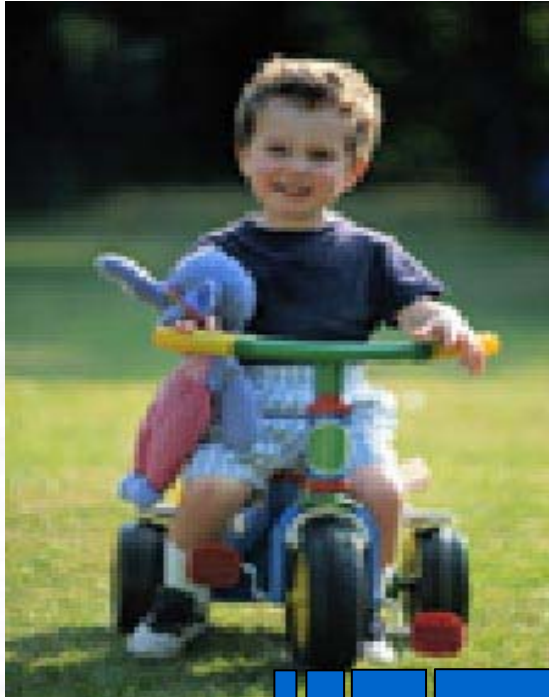


붉은색만 독립적으로 자동 색상보정

더욱 생생해진 붉은 꽃잎



A. Senseye 기술의 이미지 개선



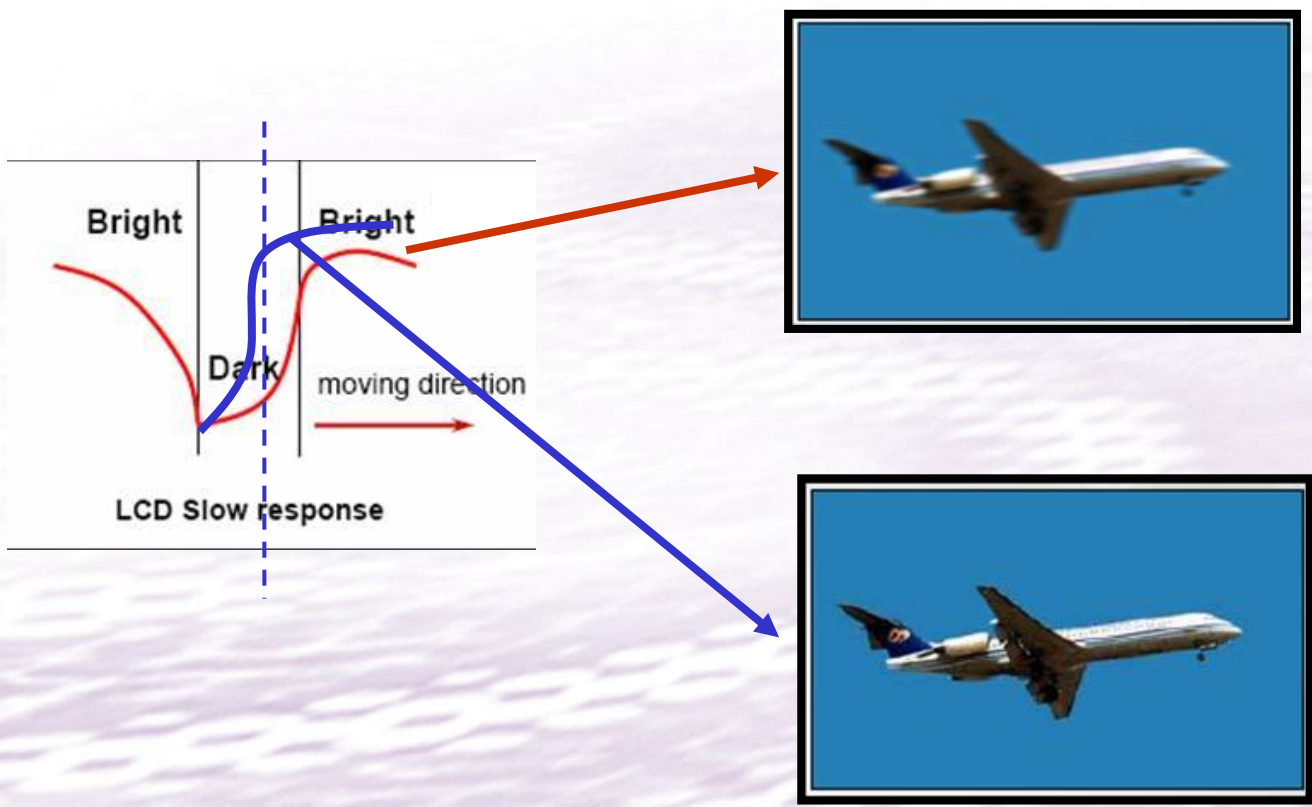
Sharpness를 조정해서 물체의 윤곽을 더욱 또렷하게 보여준다.

Enlarge image with jagged edge

Corrects image's jagged edge

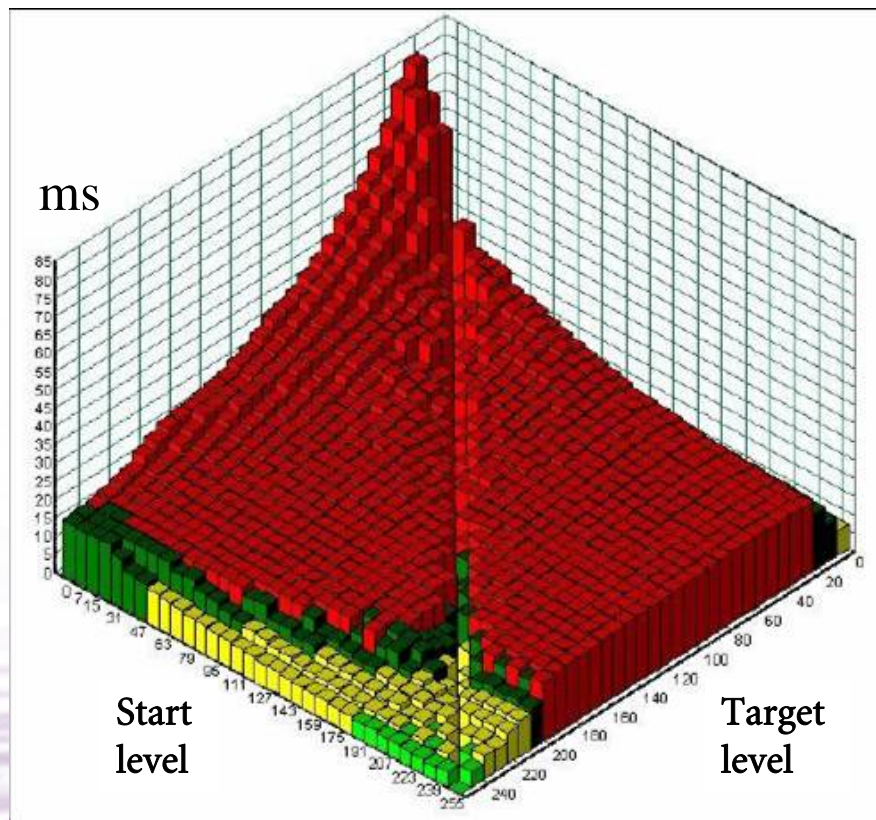
B. AMA 기술 원리

액정에 좀 더 높은 전압을 공급함으로써 원래의 반응 속도보다 좀 더 빠른 응답을 얻을 수 있음으로 인해 반응 속도를 개선할 수 있음.

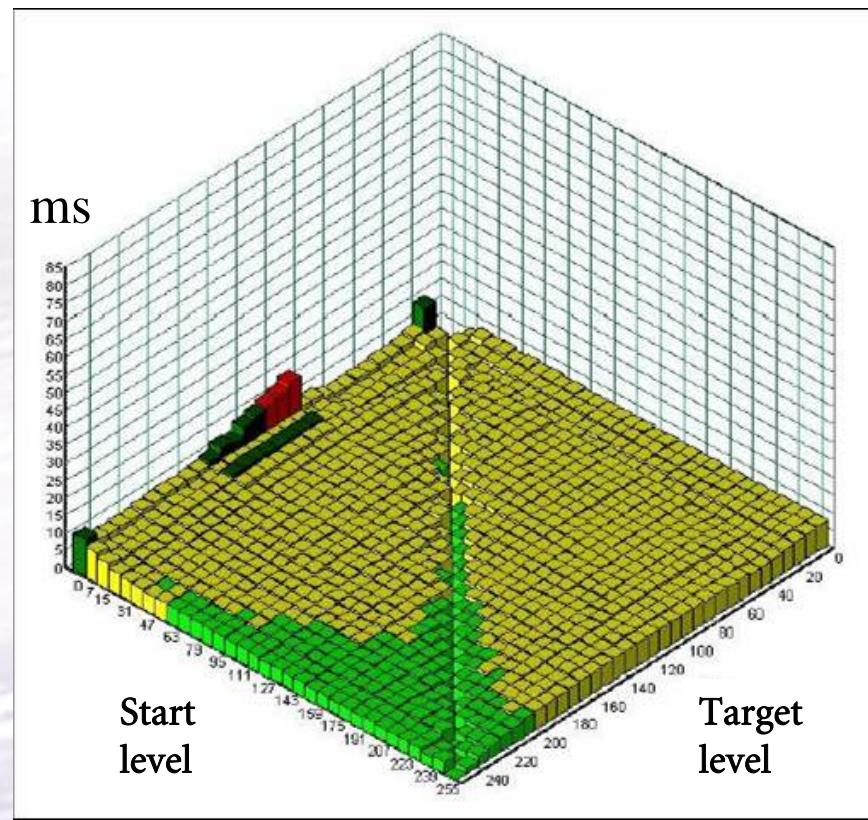


B. AMA 응답속도 테스트

예) On/Off 25ms 패널의 경우



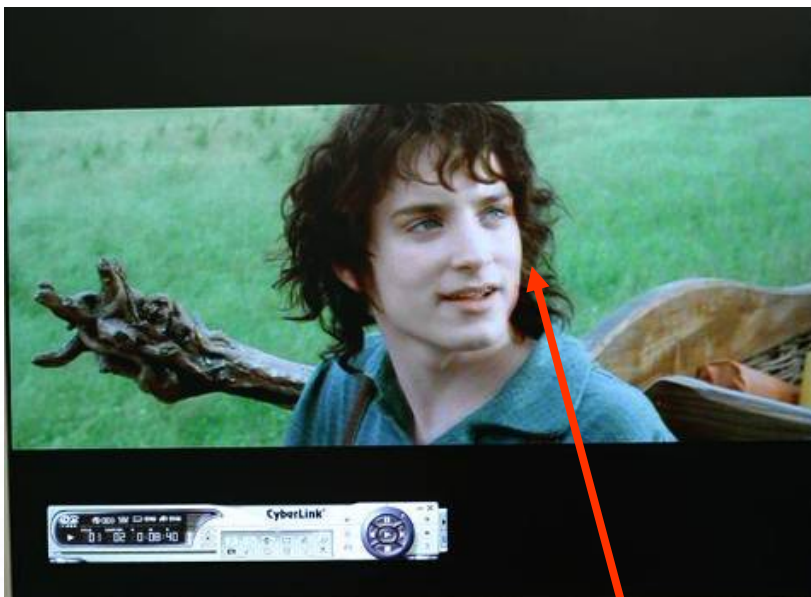
AMA Off : Ave. 50ms



AMA On: Ave. 8ms

B. AMA 기술의 이미지 개선

AMA Off



화면 끌림

AMA On



화면 끌림 없음

DVD 영상 시청시 고스트와 화면 끌림 현상 개선

B. AMA 기술의 이미지 개선

AMA Off



고스트

AMA On



고스트 없음

DVD 영상 시청시 고스트와 화면깜빡임 현상 개선

B. AMA 기술의 이미지 개선

AMA Off



고스트, 나무가 흔들려보임

AMA On



고스트 없음. 나무 선명하게 보임

게임시 고스트와 화면깜빡임 현상 개선

B. AMA 기술의 이미지 개선

AMA Off



X-마스 트리의 윤곽선에 그림자 생김

AMA On

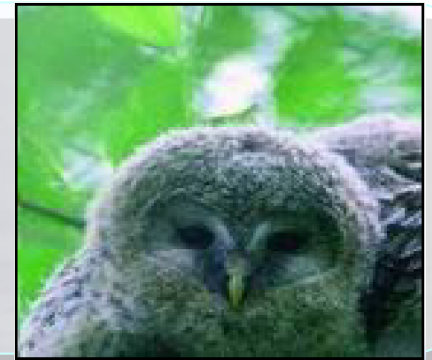
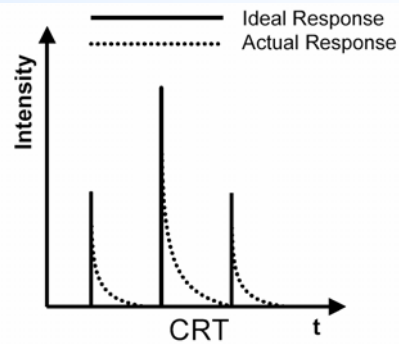
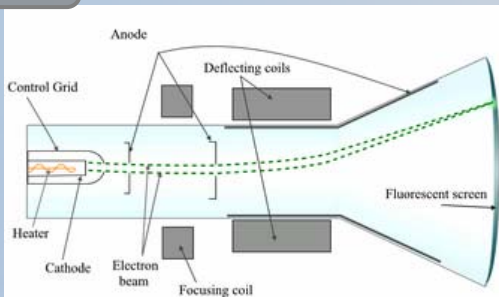


그림자 없는 선명한 이미지

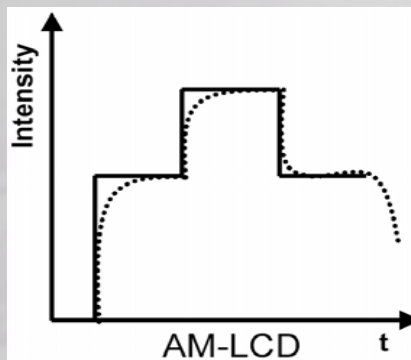
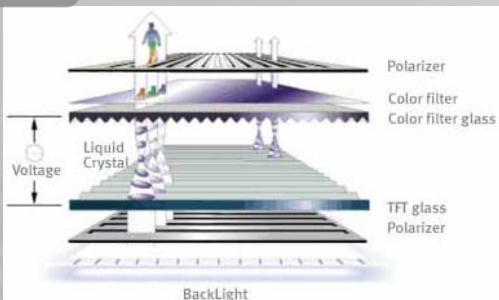
애니메이션에서 고스트와 화면깜빡임 현상 개선

C. CRT vs. LCD의 동영상

CRT



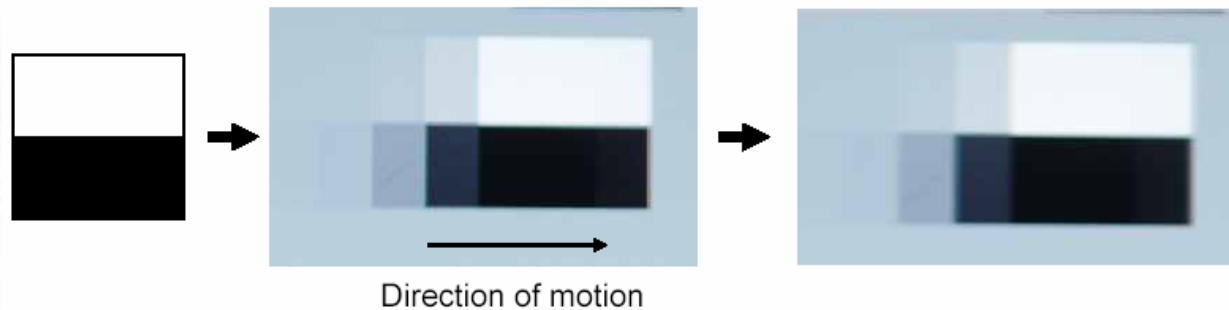
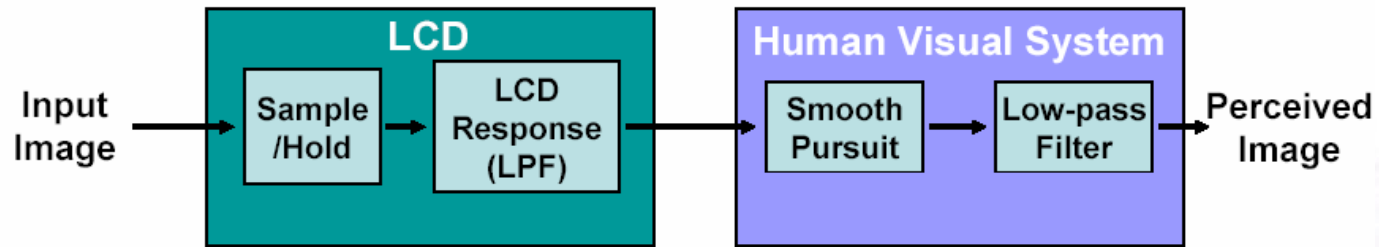
LCD



LCD 가 CRT에 비해 다소 떨어진 화면을 보여준다.



C. LCD에 대한 시각의 인지 정도

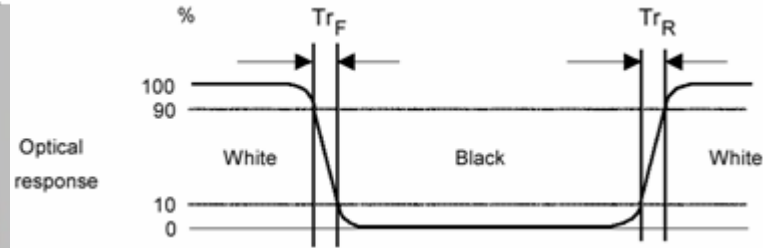


LCD뿐만 아니라, HVS관련된 요인도 개선 되어져야 한다.

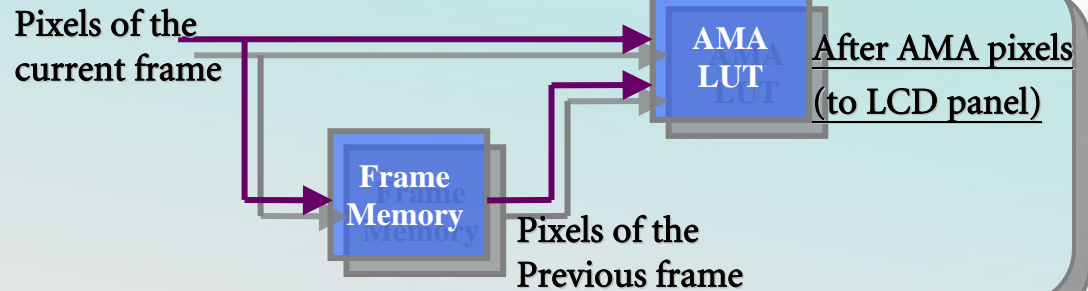
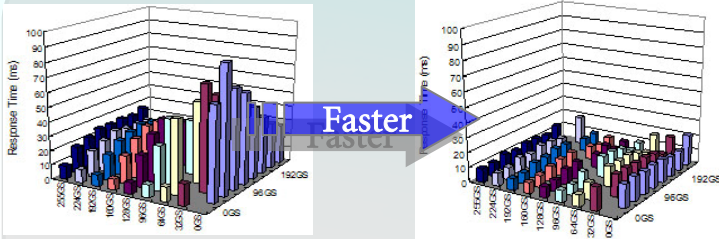
C. 더욱 빨라진 응답 속도

BFI tech. 2006

Faster Black-White Response Time



Faster Gray to Gray Response Time



Motion Pictures Comparison

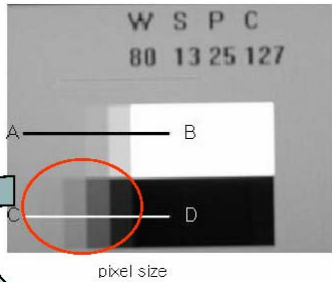


LCD의 반응속도 개선은 필수적으로 이루어져야 한다.

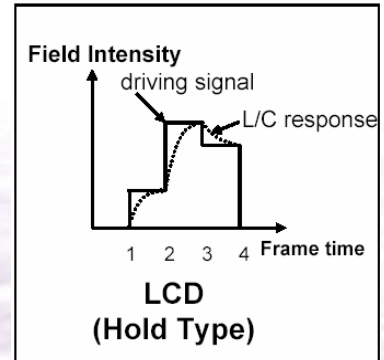
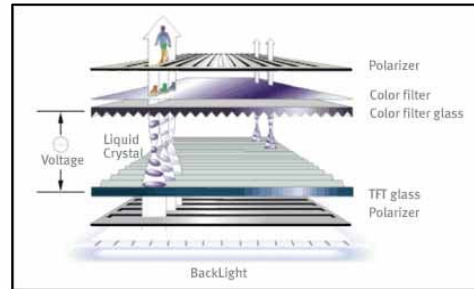
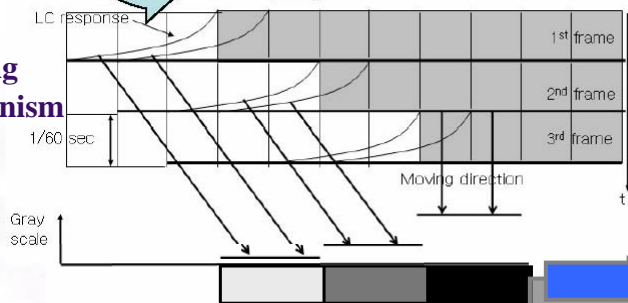
C. Hold 타입 이슈

BFI tech. 2006

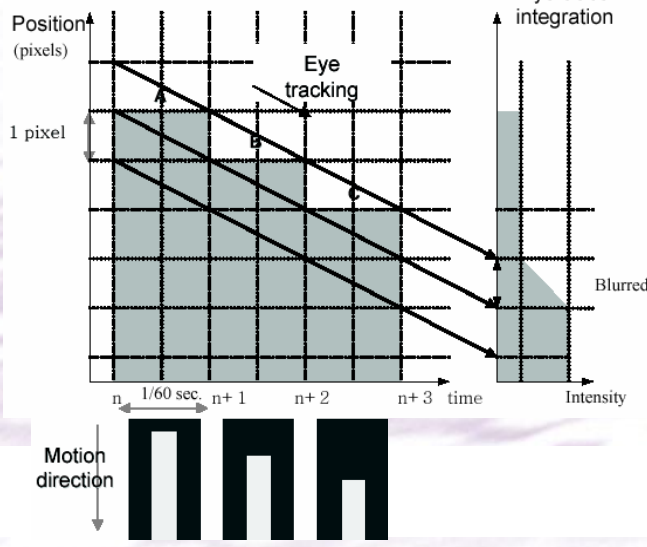
Moving box image at 13 pixel/frame in LCD



Viewing Mechanism

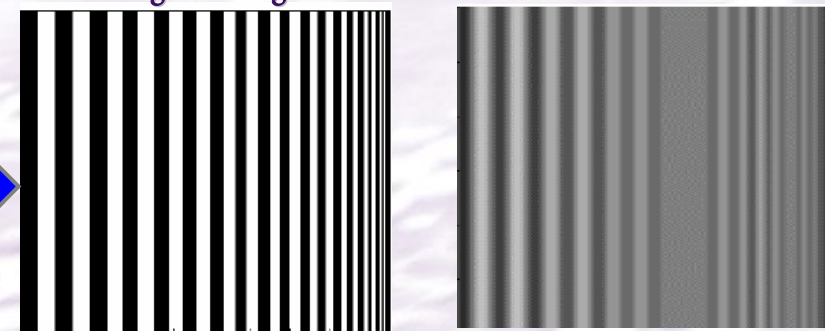


빨라진 응답속도는 단지 그레이 레벨만을 줄여줌



Original Image

Perceived Image

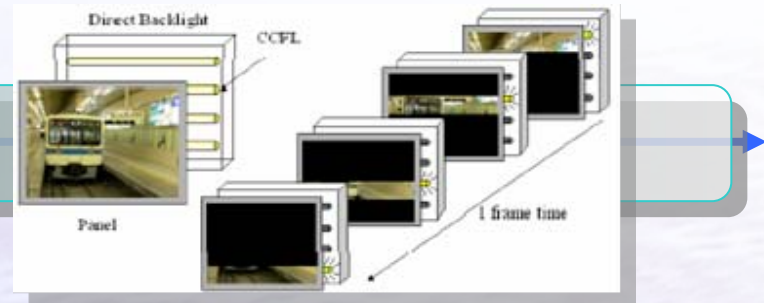


실제 인간의 시각에는 이미지 통합시 일시적 존재하는 잔상이 보임

C. Anti-Hold 타입 기술

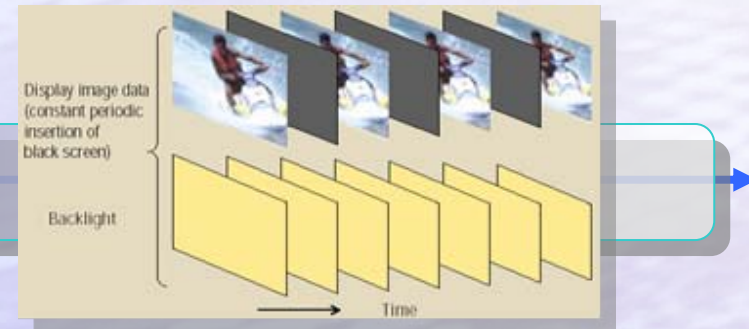
BFI tech. 2006

Scanning Backlight



Anti-Hold type

Black Frame Insertion

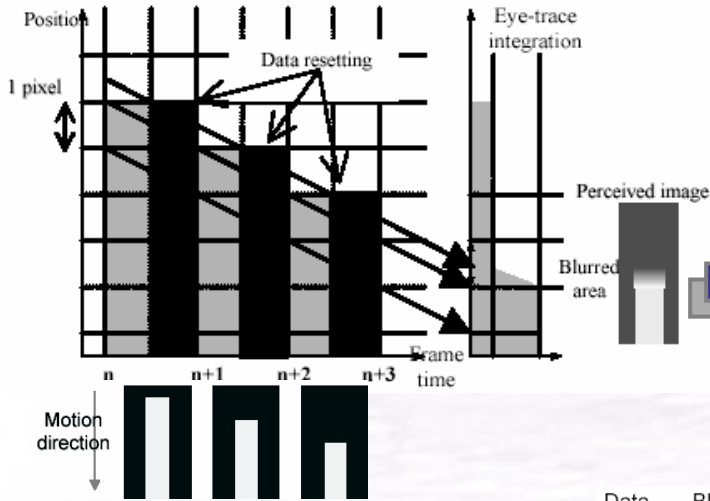


BenQ 는 이미지 개선을 위해 BFI 기술을 개발, 도입하였다.



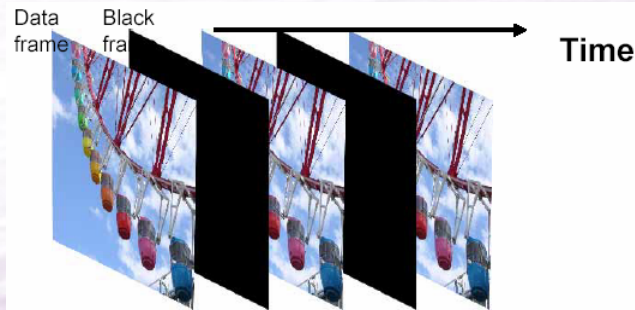
C. BFI 기술

BFI tech. 2006



BFI 기술은 이미지 번짐 현상을 최대한 줄임

Hold Type LCD



Black Frame Insertion

Impulse LCD



BFI 기술은 이미지 통합시 존재하는 일시적 잔상 효과를 제거

C. 최고의 화면 구현

BFI tech. 2006

Hold Type LCD



Data frame Black frame Time

Higher Frame Rate & Faster Response Time

Impulse LCD



AMA technology

더욱 개선된 화면 품질

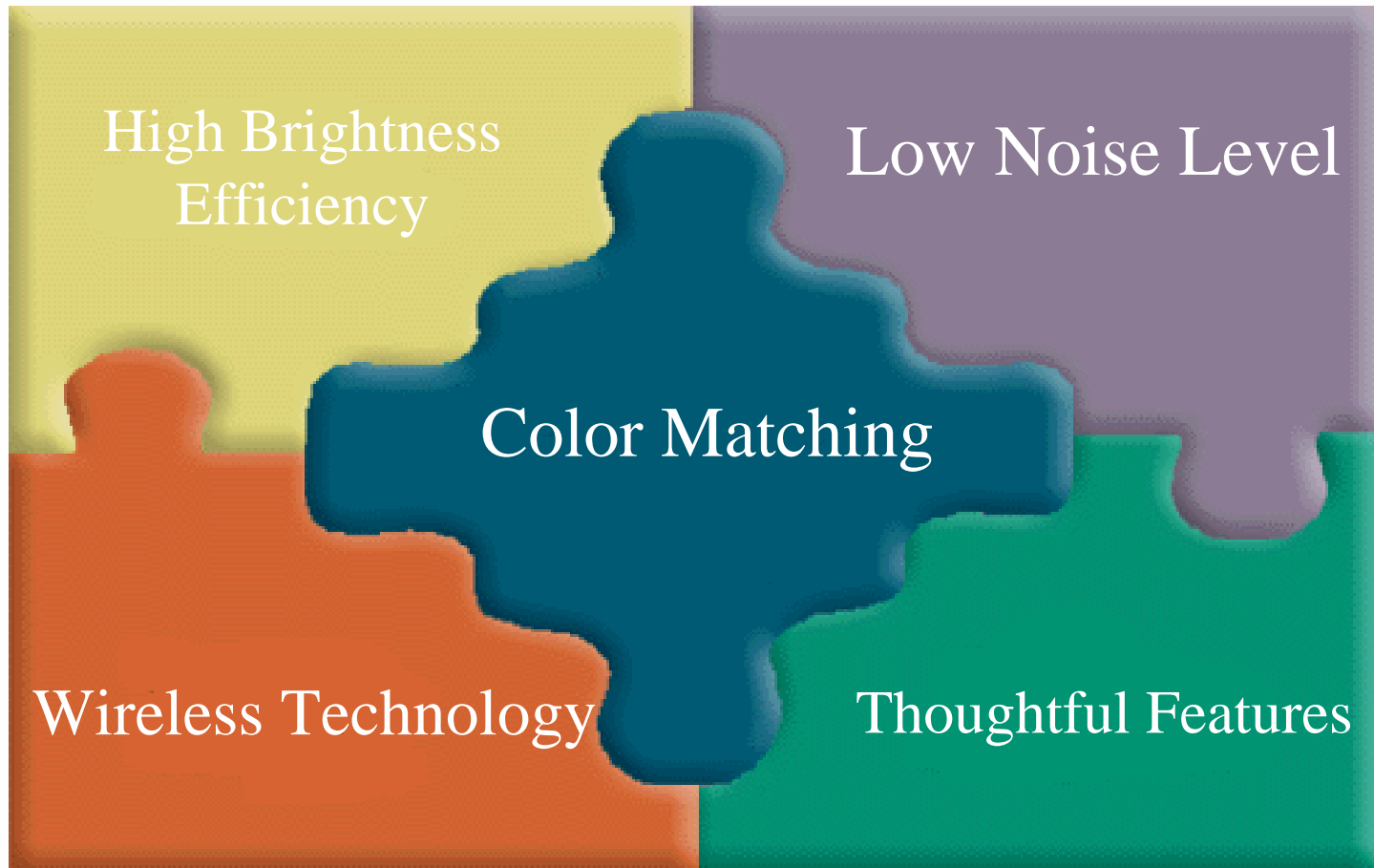
BFI technology



오직 AMA 기술과 BFI 기술의 결합만이 최고의 화면 품질을 제공

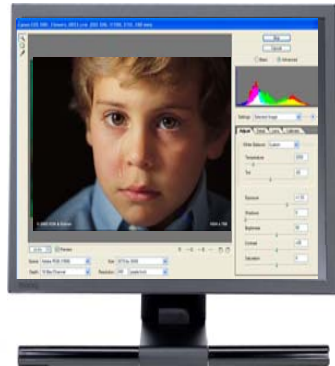
BENQ

Projector Technology



Color Matching I--Presentation Mode

BenQ



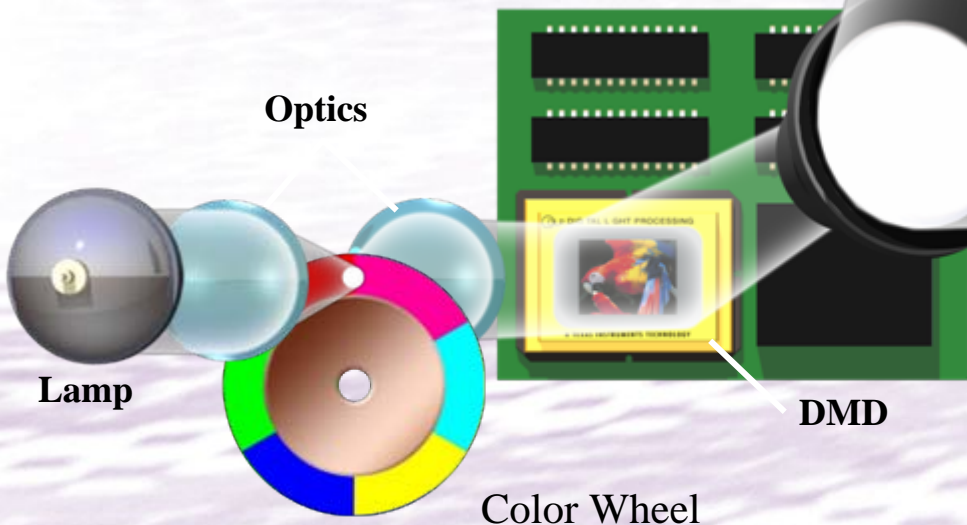
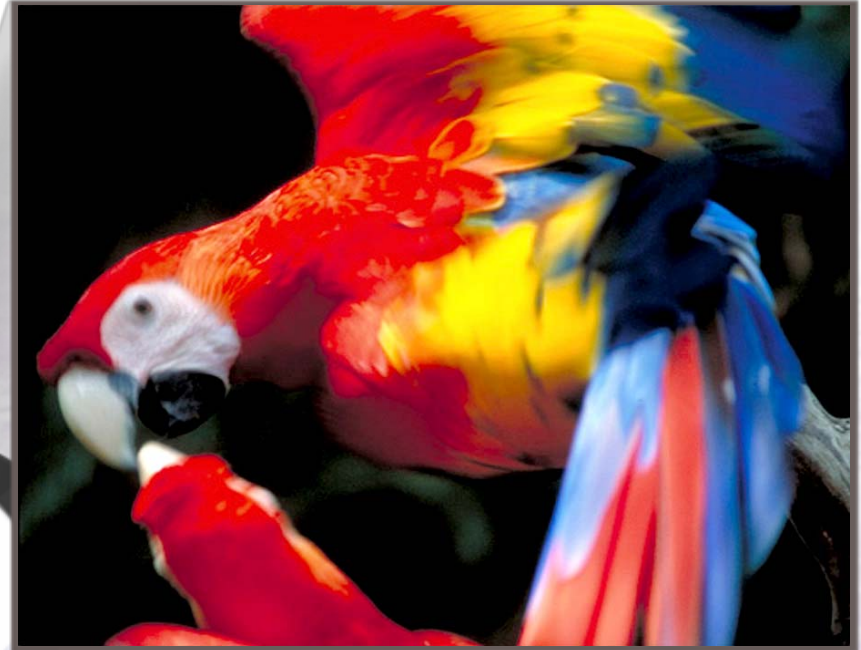
We adjust colors which will be reproduced in the same colors as presented in the original observation environment or the image equipment even when they are change !

BenQ

BenQ

Color Matching II--Golden Ratio Color Wheel

Projected image on screen



Projection Lens

3 4 5 6
Color Processing

BenQ

BenQ

Color Matching III--3D Correction Technology

R

G

B

Y

Before your 3D adjustment



After your 3D adjustment



DLP
DIGITAL LIGHT PROCESSING

Ture Color,
Even The Color Experts Trust In.
Accurately Project the Colorful World As You See.

Start to enjoy your own vivid color!

BenQ

BenQ

Color Matching IV--Wall Color Correction Technology



Have fun with consistent color in various environment



BenQ

Optical Engine Development

BenQ



P9 Engine

R1 Engine

R2 Engine

U Engine

2004

2005

2006



BenQ

Wireless Technology- LinkPro

BenQ

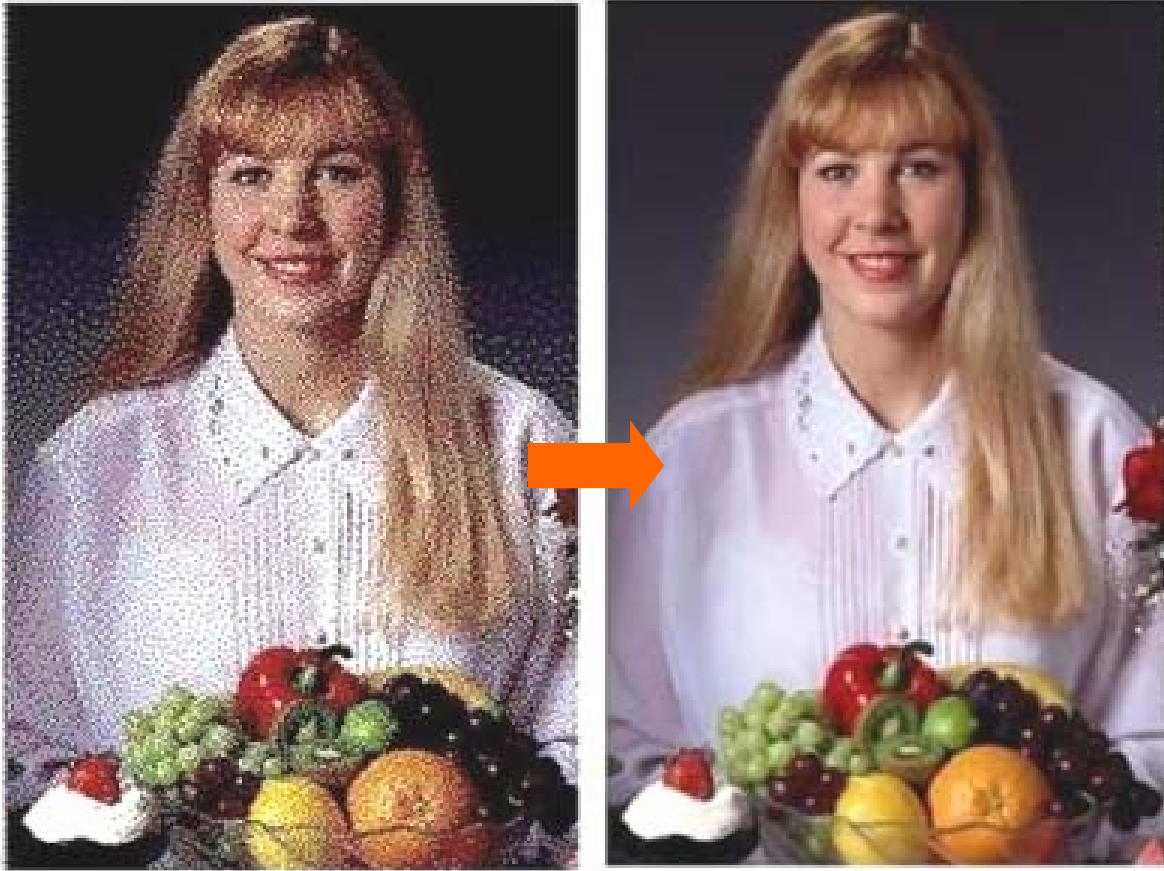


- Cables free for data transmission
- No signal loss up to 100m
- Friendly user interface
Ex. Auto -Download
- Multiple users linking simultaneously

BenQ

100M Transmission-Signal Shuttle

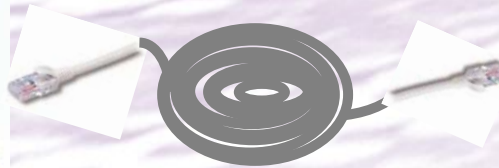
BenQ



Just enjoy the great performance in large conference!

100M transmission without any signal loss!

D-Sub ↔ D-Sub

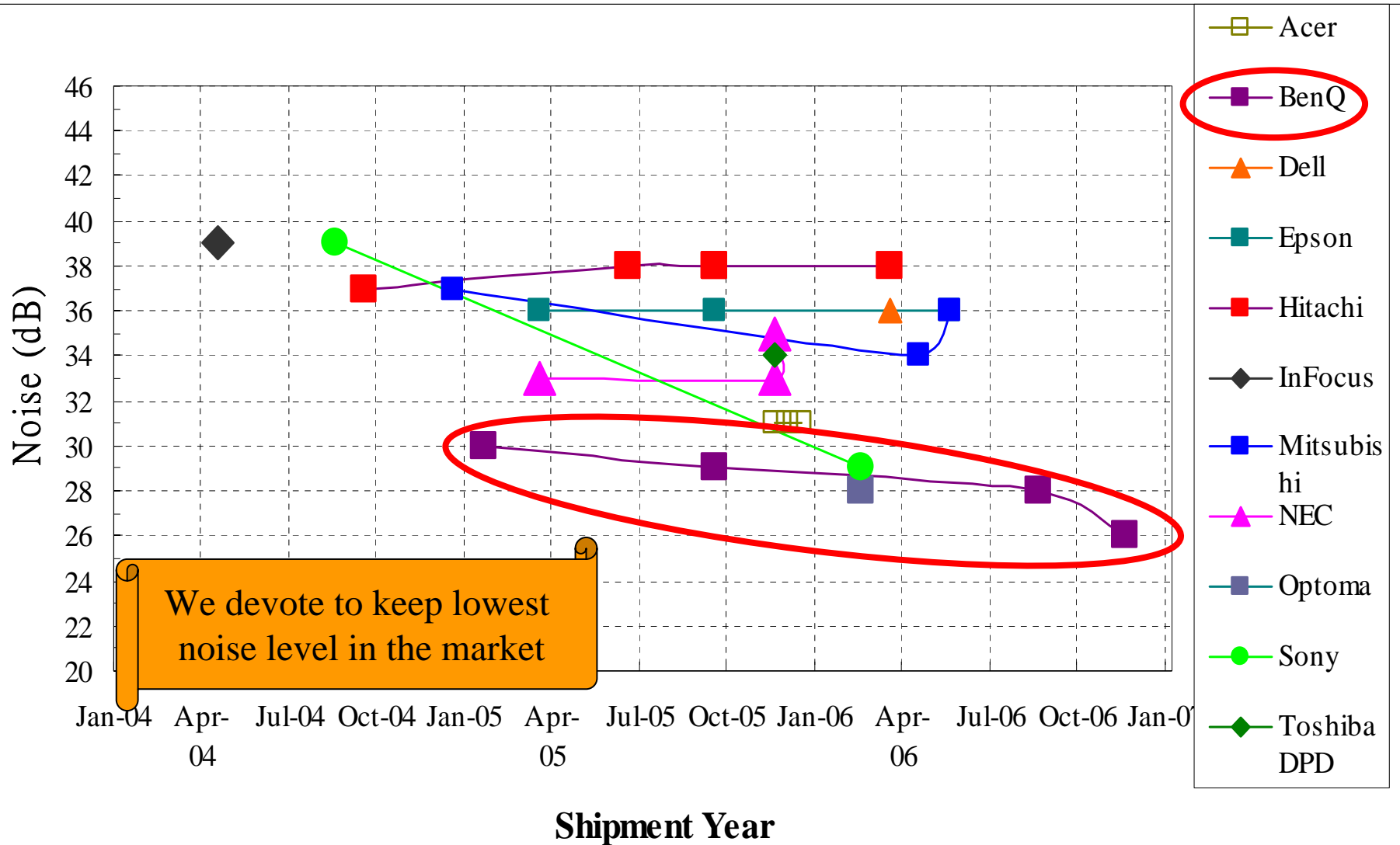


+

BenQ

Market Analysis by noise level

BenQ



We devote to keep lowest noise level in the market

Noise Improvement Technology I

BenQ



37 dB

2004



34 dB

2005



29 dB



25 dB

2006



24 dB



22 dB

2007



Refrigerator **40dB**



Quite Library **30dB**



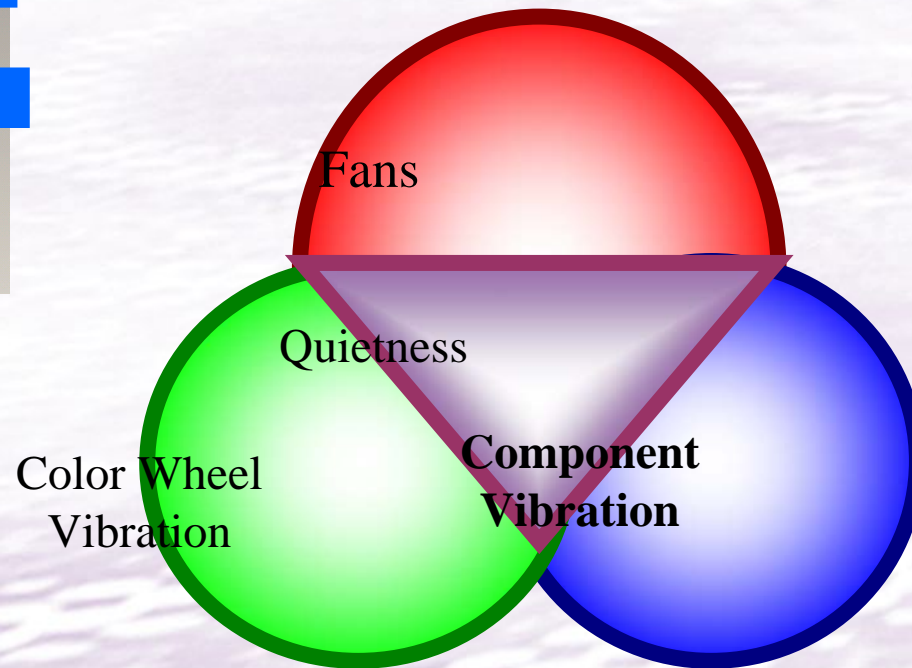
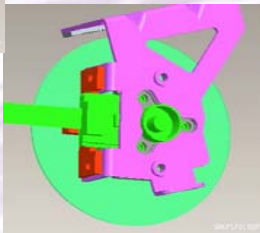
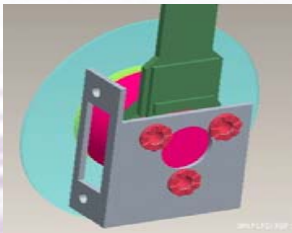
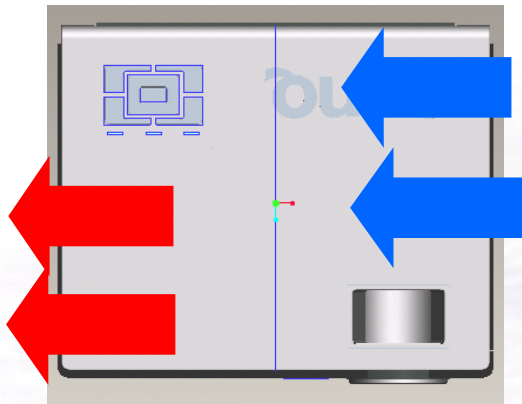
Whisper **25dB**



Rustling Leaves **20dB**

BenQ

*We not only decrease the noise from fans,
but lower the vibration from components!*



Enjoyment anywhere

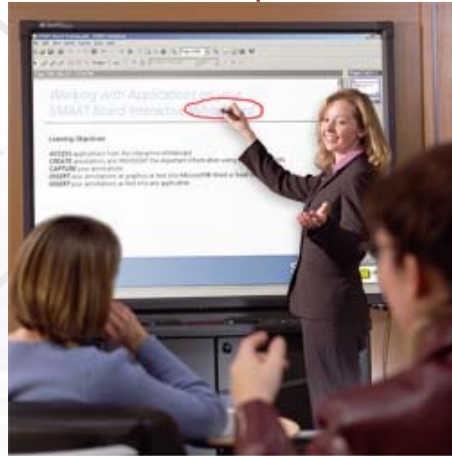
BenQ

School

Large Venue

Business

Home



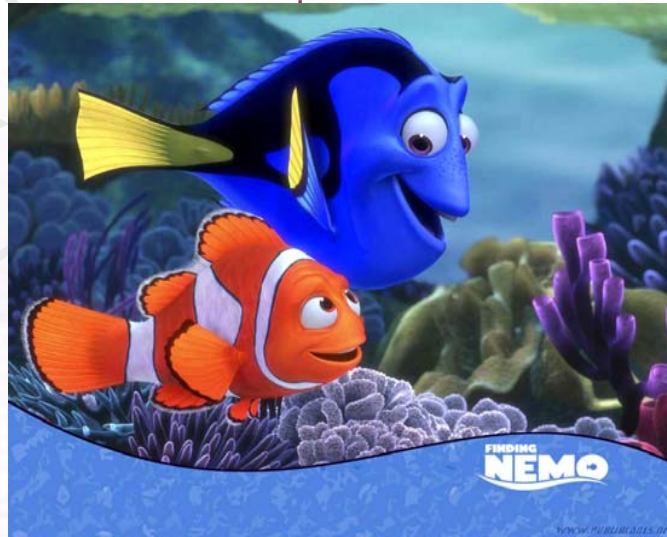
*Bright Ideas
Come in Small Packages*



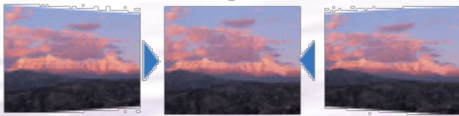
Thoughtful Features

BenQ

My Screen



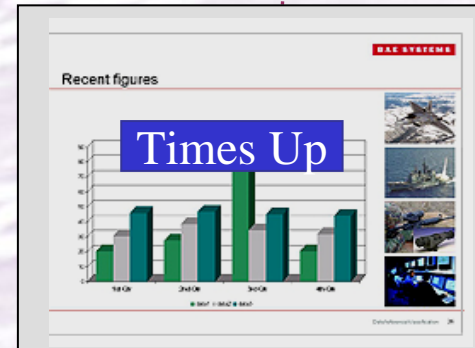
2D Keystone



Power On/Off Ring Tone



Presentation Timer



BenQ

Thoughtful Features

BenQ

Split Screen

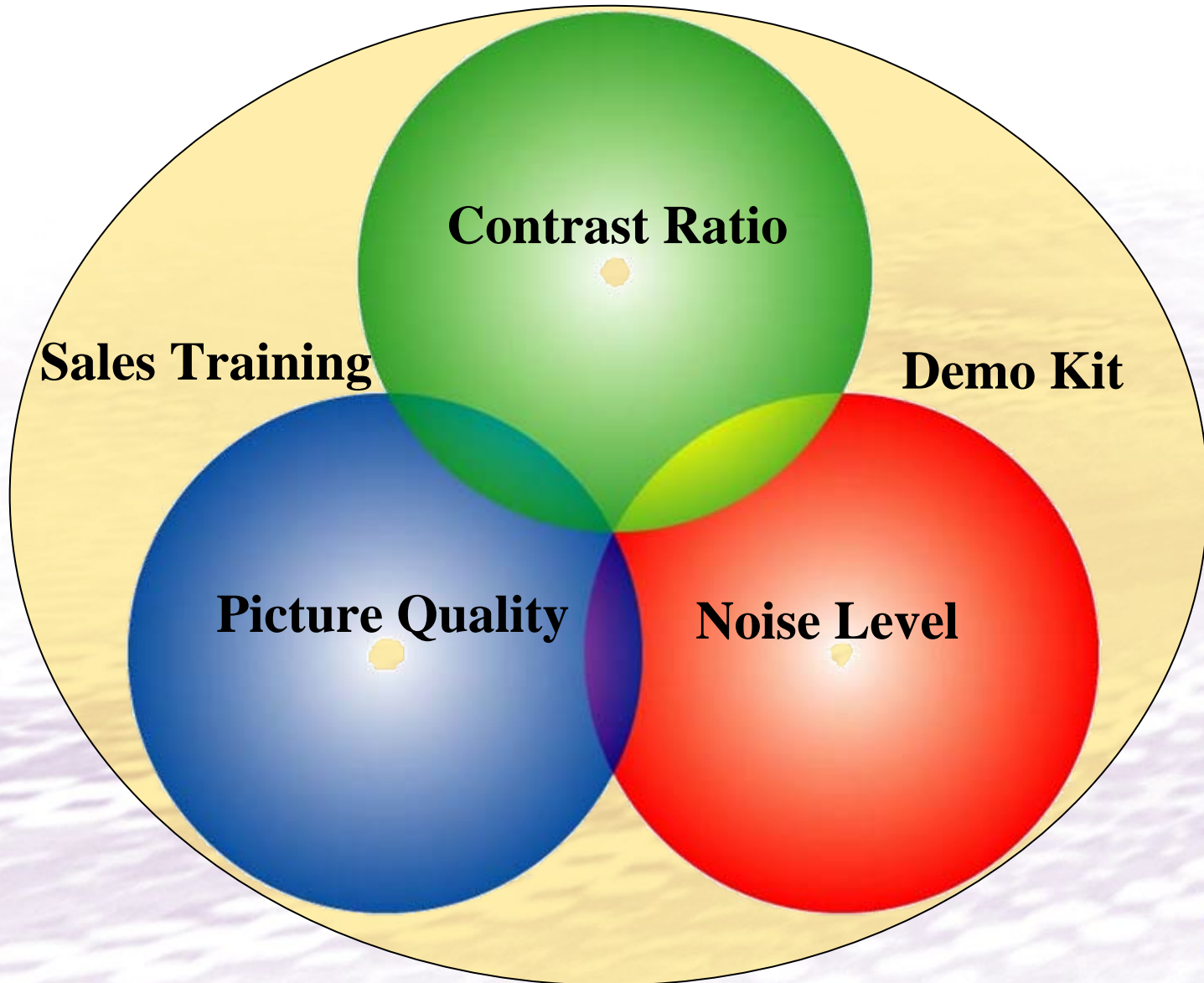


Aromatherapy



Explore new visual and smell experience

BENQ



Picture Quality

BenQ

Scaler : Oplus
DVDO

Scaler : Oplus
Faroudja

Senseye™
Jepico

SiliconOptix
HQV

2004

2005

2006

OPLUS
The Art of Display™

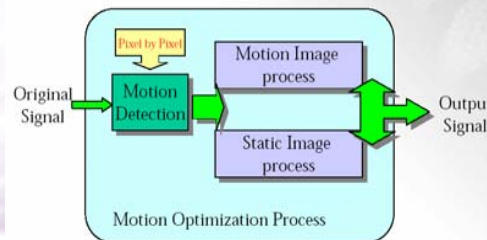
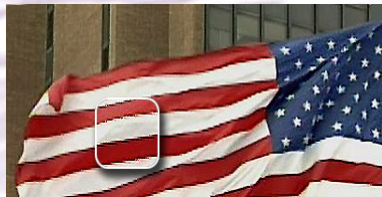
FAROUDJA
PICTURE PLUS

senseye

HQV
POWERED BY
TERANEX

- ICC™
- Film like mode

- Deinterlacing
- Noise Reduction



- 10 bit Video Processing
- HQV Detail Enhancement
- 3D Temporal Noise



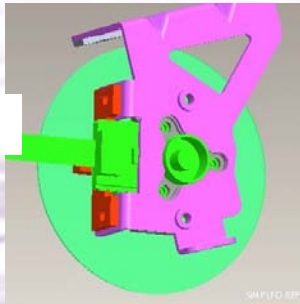
BenQ

Noise Level

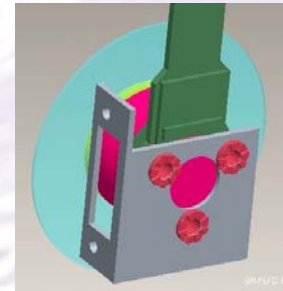
BenQ



Ball Type



Sleeve Type





BenQ

Enjoyment Matters