

BenQ LCD TV Sales Kit



BenQ
Enjoyment Matters

BenQ DV3250

For deeper, richer, clearer
high-definition experience.



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Why BenQ LCD TV?

1 Owns 3rd largest panel maker worldwide

- BenQ group owns AUO, **No.3** panel maker in the world.
- BenQ LCD TV adopts A grade panels.

NO.3

AUO



2 BenQ is a leader of digital video product

- **No. 2** DLP projector maker worldwide
- **No. 3** LCD monitor maker worldwide

NO.2



NO.3



Senseye technology

Senseye is BenQ's unique digital image technology that improves image quality.



BenQ is approved in product design



DV3080



DV2680



iF Design Award, China, 2004



“Editor's choice“, Software Power Magazine, Slovenia, Jan



Cinema Spar Tipp Award,
Germany, 2004

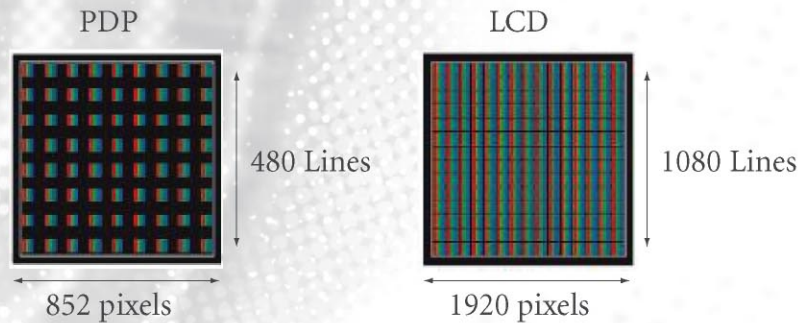


“Excellent Product of T3“, T3 Magazine, Czech, Dec 2004

LCD is better technology than PDP

Advantage 1 Higher resolution

The resolution of LCD can be as high as 1920 x 1080, while the resolution for SD (standard definition) PDP is only 852 x 480.



Advantage 2 Higher brightness

In a room with *ordinary lighting condition*, the brightness of LCD can reach 500 cd/m², while the brightness of PDPs is only around 100 cd/m².

PDP



100 cd/m²

LCD



500 cd/m²

Advantage Higher contrast ratio

In a room with *ordinary lighting conditions*, the contrast of LCD can be as high as over 500:1. The contrast of PDP is only 200:1

PDP



200 : 1

LCD

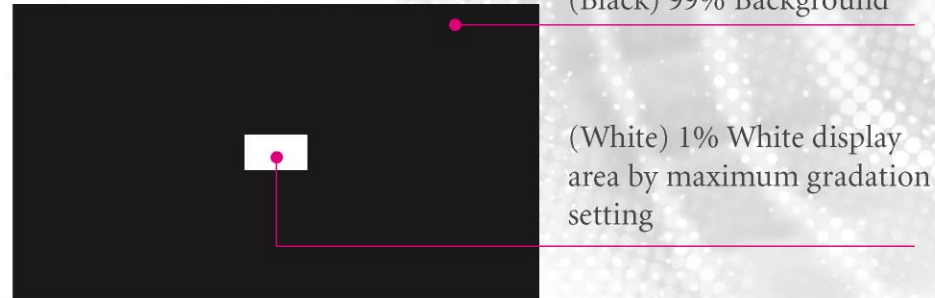


500 : 1

Why do PDPs claim to offer higher brightness and contrast?

- Their claims are based on tests conducted in an extreme environment (all-black background, with only a 1% display area), thus are misleading.

PDP Screen



PDP Brightness & Contrast Testing Method

Advantage 4 No Burn-in effect; No radiation

- After displaying static images for some time, PDP suffers “Burn-in Effect” which leaves an imprint on the PDP screen. Also, PDP displays release radiation just like conventional televisions do.
- LCD display technology does not exhibit burn-in effect and radiation, providing you more comfortable and healthier visual enjoyment.

PDP Burn-in Effect

Static image “burns” onto screen.

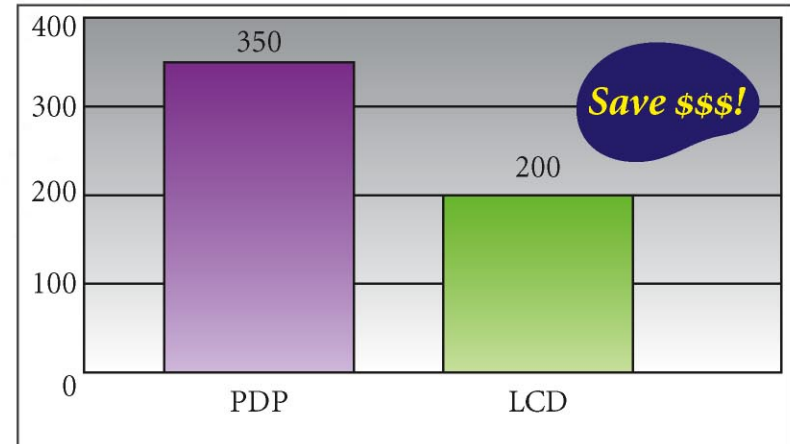


Although the image has changed, the static image remains.



Advantage 5 Lower power consumption

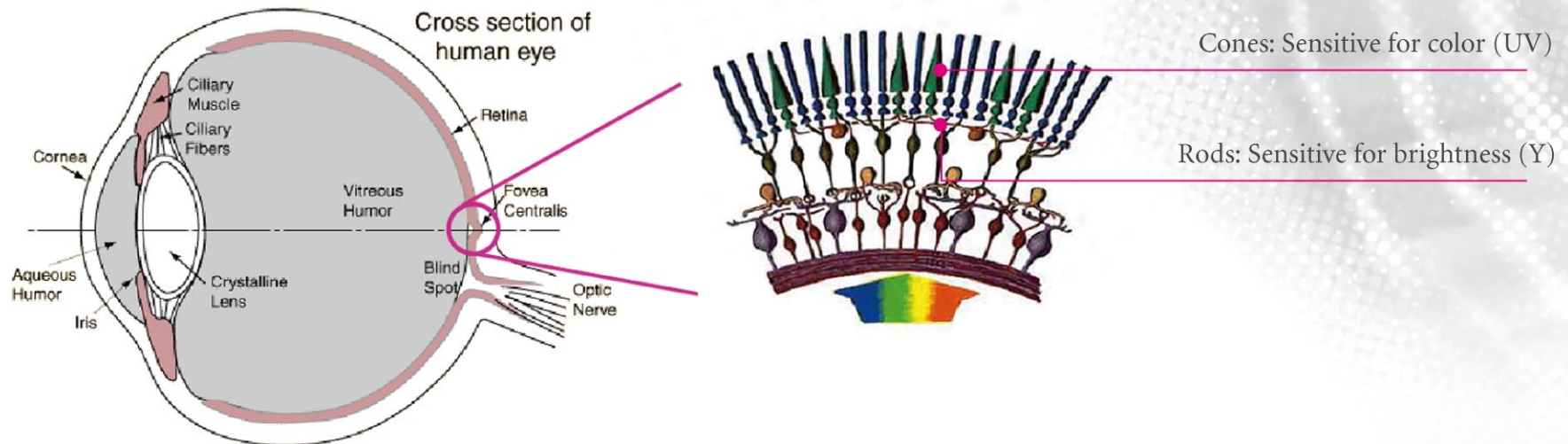
LCD consumes less power (48-200 W) than PDP (350W or higher)



Senseye Technology

Like the human eyes sense the world

- The colors found in nature are defined by two elements: *Luminance (brightness, “Y”) and Chrominance (color, “UV”)*.
- The human eye responds to the every same elements.
- Like the human eye, Senseye utilizes a YUV Domain Engine that *processes Y and UV separately*.
- With Senseye, BenQ LCD TV demonstrates deeper, richer and clearer images.



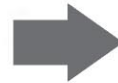
Senseye Technology= Senseye IPU + 4 Image Processing Units



=

+

*Senseye IPU
(Image process unit)*



*Processing Units
(3C + 1M)*



*Clarity Enhancement:
Presents purified display*



*Color Enhancement:
Restores true-to-life images*



*Contrast Enhancement:
Shows unparalleled details*

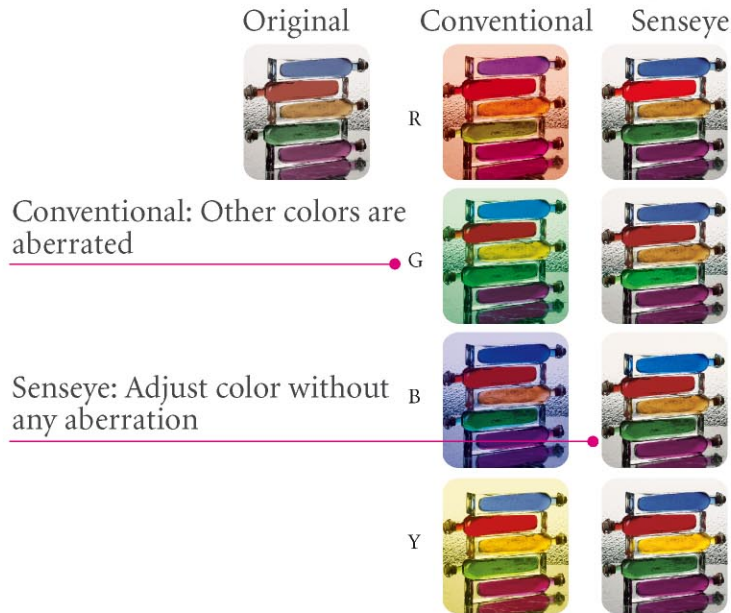


*Motion Optimization:
Smooths out moving images*

Two main competitive features of Senseye

1 Independent four-color adjustment

- It can adjust the color according to a user's personal preference without aberration.



Conventional: Other colors are aberrated

Senseye: Adjust color without any aberration

2 10 bit internal processing

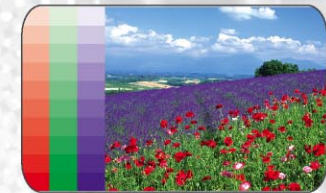
- Can handle over **1.07 billion** colors!
- Layers of color can be adjusted to be smoother and more vivid.

Conventional 8 bit



8-bit equals 256 color steps
($256 \times 256 \times 256 = 16.8$ million)

BenQ Senseye 10 bit



10-bit equals 1024 color steps
($1024 \times 1024 \times 1024 = 1.07$ billion)

Model cross reference

BenQ LCD TV Cross Reference (NTSC)



Model	DV2050	DV2680	DV3080	DV3250	DV3750	DV4670
Screen Diagonal (cm / inch)	50.8 / 20.1	66 / 26	76 / 30	80 / 31.5	94 / 37	117 / 46
Aspect Ratio	4 : 3	Widescreen	Widescreen	True 16 : 9	True 16:9	True 16 : 9
Brightness (cd/m ²)	450	600	600	500	550	600
Contrast Ratio	500 : 1	600 : 1	600 : 1	800 : 1	800 : 1	600 : 1
Response Time	16 ms (Gray to Gray)	16 ms (Gray to Gray)	16 ms (Gray to Gray)	12 ms (Gray to Gray)	8 ms (Gray to Gray)	8 ms (Gray to Gray)
Viewing Angle (H / V)	160 / 120	170 / 170	170 / 170	170 / 170	176 / 176	170 / 170
Resolution	800(x3) x 600	1280(x3) x 768	1280(x3) x 768	1366(x3) x 768	1920(x3) x 1080	1920(x3) x 1080
HDTV Compatible 480i / 480p / 720p / 1080i	• / • / • / •	• / • / • / •	• / • / • / •	• / • / • / •	• / • / • / •	• / • / • / •
Sound Effect	Stereo	Stereo	Stereo	SRS TruSurround® XT	SRS TruSurround® XT	Stereo
Speaker	5W x 2	10W x 2	10W x 2	10W x 2	15W x 2	15W x 2 (Detachable)
Senseye Technology	-	-	-	•	•	•
Independent Four-color Adjustment	-	•	•	•	•	•
DCDi	-	-	-	•	•	•
De-Interlacing	2D, Edge Depending De-Interlacing (EDDI)	•	•	Motion adaptive de-interlacing	Motion adaptive de-interlacing	•
3D Y/C Comb Filter	2D comb filter	•	•	•	•	•
Input Terminals						
Composite AV (3 Cinch)	•	•	•	3(2 rear, 1 side)	3(2 rear, 1 side)	3 (2 rear, 1 front)
S-Video	•	•	•	3(2 rear, 1 side)	3(2 rear, 1 side)	3 (2 rear, 1 front)
Component (Y Pb Pr / Y Cb Cr) + Audio	•	•	•	2	2	2
D-Sub	-	•	•	•	•	•
PC Audio	-	•	•	•	•	•
DVI-HDCP+Audio	-	•	•	•	•	1 (HDCP)
RS 232	Mini-Din 8pin	built in D-sub	built in D-sub	1	1	Mini-Din RS232
Output Terminals						
Headphone	-	-	-	1 side	1 side	1 front
Audio Out	•	-	L / R / Subwoofer	L / R	L / R / Subwoofer	•
Dimension with Stand (W x H x D mm)	655 x 447 x 154	850 x 503 x 203	922 x 527 x 204	997 x 592 x 190	1025 x 657 x 220	1562 x 817 x 251
Weight (with stand, Kg)	9.8	15	17.8	20	23	42
Power Consumption (W)	70	160	180	200	230	390

* Specifications are subject to change without notice.

* DV4670 only available in some regions

DV3750



- Native HD Resolution : 1920 x 1080
- Senseye technology
- DCDi by Faroudja
- SRS TruSurround XT
- High contrast ratio : 800 : 1
- Side AV input

Model	DV3750
Screen Diagonal (cm / inch)	94 / 37
Brightness (cd/m ²)	550
Contrast Ratio	800 : 1
Response Time	8 ms (Gray to Gray)
Viewing Angle (H / V)	176 / 176
Resolution	1920(x3) x 1080
HDTV Compatible 480i / 480p / 720p / 1080i	• / • / • / •
Speaker	15W x 2
Aspect Ratio Adjustment	16:9 / 4:3 / Full Screen / Fine zoom / Wide
Picture Modes	Vivid / Standard / Movie / Sports
De-Interlacing	Motion adaptive de-interlacing
3D Y/C Comb Filter	•
PIP/PBP	•
Backlight Eco Mode	•
Color temperature	Warm / Cool / Standard
Dimension with Stand (W x H x D mm)	1025 x 657 x 220
Weight (with stand, Kg)	23
Power Consumption (W)	230

Notes : _____



DV3250



- Senseye technology
- DCDi by Faroudja
- SRS TruSurround XT
- Side AV input
- High contrast ratio : 800 : 1
- High resolution: 1366 x 768

Notes : _____

Model	DV3250
Screen Diagonal (cm / inch)	80 / 31.5
Brightness (cd/m ²)	500
Contrast Ratio	800 : 1
Response Time	12 ms (Gray to Gray)
Viewing Angle (H / V)	170 / 170
Resolution	1366(x3) x 768
HDTV Compatible 480i / 480p / 720p / 1080i	• / • / • / •
Speaker	10W x 2
Aspect Ratio Adjustment	16:9 / 4:3 / Full Screen / Fine zoom / Wide
Picture Modes	Vivid / Standard / Movie / Sports
De-Interlacing	Motion adaptive de-interlacing
3D Y/C Comb Filter	•
PIP/PBP	•
Backlight Eco Mode	•
Color temperature	Warm / Cool / Standard
Dimension with Stand (W x H x D mm)	997 x 592 x 190
Weight (with stand, Kg)	20
Power Consumption (W)	200



DV3080



- Independent four-color adjustment
- O-plus Scaler Chip
- High contrast ratio : 600 : 1
- High brightness: 600 cd/m²
- PC input
- iF Design Award China 2004

Model	DV3080
Screen Diagonal (cm / inch)	76 / 30
Brightness (cd/m ²)	600
Contrast Ratio	600 : 1
Response Time	16 ms (Gray to Gray)
Viewing Angle (H / V)	170 / 170
Resolution	1280(x3) x 768
HDTV Compatible 480i / 480p / 720p / 1080i	• / • / • / •
Speaker	10W x 2
Aspect Ratio Adjustment	16:9 / 4:3 / Full Screen / Fine zoom / Wide
Picture Modes	Vivid / Standard / Movie / Sports
De-Interlacing	•
3D Y/C Comb Filter	•
PIP/PBP	•
Backlight Eco Mode	•
Color temperature	Warm / Cool / Standard
Dimension with Stand (W x H x D mm)	922 x 527 x 204
Weight (with stand, Kg)	17.8
Power Consumption (W)	180

Notes : _____



iF Design Award, China, 2004

DV2680



- Independent four-color adjustment
- O-plus Scaler Chip
- High contrast ratio : 600 : 1
- High brightness : 600 cd/m²
- PC input

Notes : _____

Model	DV2680
Screen Diagonal (cm / inch)	66 / 26
Brightness (cd/m ²)	600
Contrast Ratio	600 : 1
Response Time	16 ms (Gray to Gray)
Viewing Angle (H / V)	170 / 170
Resolution	1280(x3) x 768
HDTV Compatible 480i / 480p / 720p / 1080i	• / • / • / •
Speaker	10W x 2
Aspect Ratio Adjustment	16:9 / 4:3 / Full Screen / Fine zoom / Wide
Picture Modes	Vivid / Standard / Movie / Sports
De-Interlacing	•
3D Y/C Comb Filter	•
PIP/PBP	•
Backlight Eco Mode	•
Color temperature	Warm / Cool / Standard
Dimension with Stand (W x H x D mm)	850 x 503 x 203
Weight (with stand, Kg)	15
Power Consumption (W)	160



“Editor's choice“, Software Power Magazine, Slovenia, Jan 2005

“Excellent Product of T3“, T3 Magazine, Czech, Dec 2004

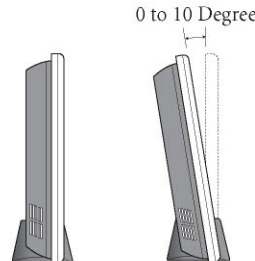
DV2050



- CTI/LTI technology
- 10-degree adjustable screen tilt
- HDTV compatible
- Resolution 800 x 600
- Contrast ratio : 500 : 1

Model	DV2050
Screen Diagonal (cm / inch)	50.8 / 20.1
Brightness (cd/m2)	450
Contrast Ratio	500 : 1
Response Time	16 ms (Gray to Gray)
Viewing Angle (H / V)	160 / 120
Resolution	800(x3) x 600
HDTV Compatible 480i / 480p / 720p / 1080i	• / • / • / •
Speaker	5W x 2
Aspect Ratio Adjustment	16:9 / 4:3
Picture Modes	Vivid / Standard / Movie / Sports
De-Interlacing	2D, Edge Depending De-Interlacing (EDDI)
Comb Filter	•
Backlight Eco Mode	•
Color temperature	Warm / Cool / Standard
Dimension with Stand (W x H x D mm)	655 x 447 x 154
Weight (with stand, Kg)	9.8
Power Consumption (W)	70

Notes : _____



10-degree adjustable screen tilt

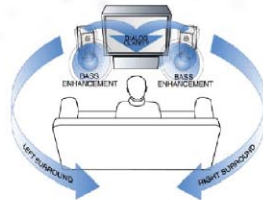
Remarks :

A. SRS TruSurround XT sound effect

TruSurround is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers.

Three main features :

- 1 **SRS Dialog Clarity Enhancement**: improving dialog intelligibility
- 2 **TruBass** : enhances bass performance
- 3 **WOW** : improves the performance of stereo signals through any two-speaker system



B. DCDi™

DCDi is an enhanced motion processor, which can produce a smooth and natural looking image without visible artifacts or jaggies.



Other Solution

- Stair Stepping on Diagonal Edges
- Blocky Looking Images



Enhanced Motion

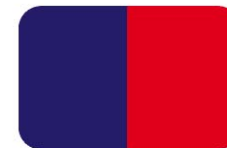
- Smooth Diagonal Edges
- Film Like Response

C. CTI / LTI technology

- CTI : Color Transient Improvement
- LTI : Luminance Transient Improvement
- CTI / LTI can reduce color smear and enhance contour details.



Without CTI / LTI



With CTI / LTI

FAQ

Can BenQ LCD TV support DVI signal ?

Yes. DVI, Digital Visual Interface, is one of the digital video interfaces. DVI has two standard on hand. One is "DVI-D" and the other is "DVI-I". BenQ LCD TV supports "DVI-D" format.

How long is the life of LCD TV?

The average life is about 60,000 hours, which means you can use over 20 years when watching LCD TV 8 hours per day.

How to clean LCD TV?

You need to use a slightly damp cloth (no cleaners or aerosols) to clean the screen and case, and then dry it with a clean, dry, lint-free cloth.

What is the number of pixels of the LCD display?

It depends on the resolution. You can calculate by multiplying resolution by 3 (RGB).

Example:

Number of pixels of DV4670= $1920 \times 1080 \times 3 = 6.22$ million

Number of pixels of DV3250= $1366 \times 768 \times 3 = 3.14$ million

Number of pixels of DV3080/DV2680= $1366 \times 768 \times 3 = 2.95$ million

Number of pixels of DV2050= $800 \times 600 \times 3 = 1.44$ million



BenQ

BenQ.com