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2009.4

TV and technology - partners in progress

To the next TV revolution

Beijing Olympics shared globally in Hi-Vision (2008)

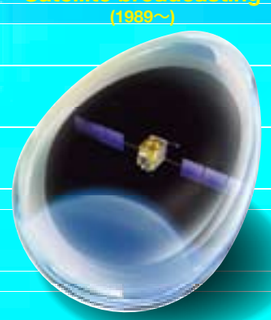
Diverse services for the digital age such as One-Seg (a digital broadcasting service for mobile devices) and data broadcasting were made possible by the digitalization of broadcasting.

Digital satellite broadcasting
(2000～)

Opening ceremony at NHK

Digital terrestrial broadcasting
(2003～)

Satellite broadcasting
(1989～)



The image of broadcast satellite
NHK began full-scale satellite broadcasting on two channels.

Experimental Hi-Vision(HDTV) broadcasting
(1989～)

The Nagano Olympic Games (1998) contributed to the widespread of large size TVs.

Color TV broadcasting
(1960～)

The Tokyo Olympic Games (1964)
NHK organized TV relays for all domestic and foreign broadcasters.

Black and white TV broadcasting
(1953～)

Royal wedding live relay (1959)
The event accelerated the spread of TV in Japan.

The ultimate! Super Hi-Vision

So real, you'll forget you're watching TV!

NHK is on the path to perfecting the ultimate video and audio system—one that delivers an experience so real, you'll feel you're right there where the camera is. This Super Hi-Vision system features 33 megapixels (7680 x 4320 pixels) along with 22.2 multichannel sound.

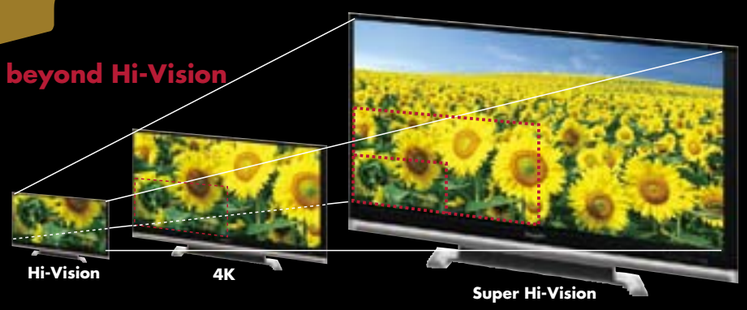
A total TV experience for the eyes and ears

16 times the resolution of Hi-Vision

Each Super Hi-Vision image packs 33 megapixels of visual information. That's 16 times more information than today's Hi-Vision (HDTV)—and you know how good that looks. Super Hi-Vision images are so detailed, so convincing, you'll feel that you yourself are right there where the camera is.

Super Hi-Vision: a giant leap beyond Hi-Vision

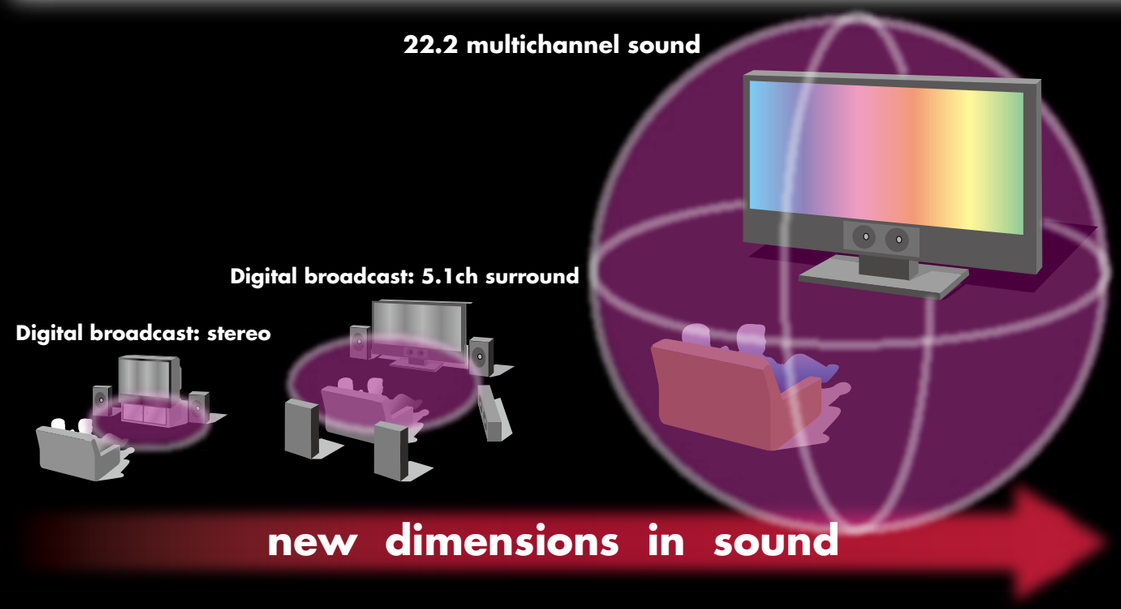
With its 33 megapixels, Super Hi-Vision represents a giant leap forward in image clarity compared to the 2 megapixels of regular HDTV. It lets you watch TV at HDTV resolution on a bigger screen, or you can keep the same screen size and enjoy Super Hi-Vision resolution. Various ways are being developed to present the images in different resolutions.



PICTURE SOUND

22.2 multichannel sound

Super Hi-Vision is presented in 22.2 multichannel sound, a huge improvement over HDTV's already outstanding 5.1ch surround. You are simply immersed in sound and again, the experience is so immediate that you feel you're right there, hearing everything with your own ears.



Enhancing Realism

Super Hi-Vision adds a new sense of reality to every kind of TV program, but just imagine the impact for sports, nature and art coverage. You'll see pictures that are dynamic, immediate, simply stunning. You'll hear sound that is more natural and direct than ever before. Cultural heritage, historical events - it is now possible to record every scene of value with perfect details that can be shared with later generations.

Making so many dreams come true

The vast potential of Super Hi-Vision is already being explored: giant screens for public viewing, displays for the home, exceptionally detailed small images, and outstanding home audio systems.

Large-size flat panel display

Magazine like display

Wall type home audio system

Super Hi-Vision : Milestones

2000		Research starts on a system with 4000 scanning lines
2002	Mar	First public presentation at a ceremony commemorating the opening of the new building for NHK's Science and Technical Research Laboratories (camera, display, audio equipment, recording equipment developed)
2004		NHK names the system “Super Hi-Vision”
2005	Mar-Sep	Presented at the Aichi World Exposition
	Oct	Exhibited at Kyushu National Museum
	Nov	Successful transmission of uncompressed data via optical cable
	Dec	Live transmission for the public viewing of *Red & White Year-end Song Festival* (at NHK Fureai Hall)
2006	Apr	Debut outside Japan (NAB 2006, Las Vegas)
	Jul	Approved by ITU-R for large-screen digital imagery
	Sep	Exhibited at IBC2006 (Amsterdam)
	Dec	Live IP relay from Tokyo to Osaka for public viewing
2007	Apr	Exhibited at NAB 2007
	Oct	Image format becomes an SMPTE standard
2008	Apr	Exhibited at NAB 2008
	Jun	Debut in Asia (BroadcastAsia2008, Singapore)
	Aug	22.2 multichannel sound adopted as SMPTE standard
	Sep	First international transmission by cable and satellite (IBC2008)

NAB 2007

BroadcastAsia2008

IBC2008 (relay from London)

Quest for the next generation of TV

Soon after the successful broadcasting of the Tokyo Olympics in 1964, attention turned to the next generation of TV, and we embarked on HDTV research. These days HDTV is a popular choice for program production and TV sets, but it has taken many years to reach this stage. With more and more broadcasts going digital, a new horizon in HDTV is now the focus of our research efforts: Super Hi-Vision, television with the power to put you in the pictures. There's so much to look forward to, and we're working to make it happen!