

Transition from Analogue Television Broadcasting to DTV

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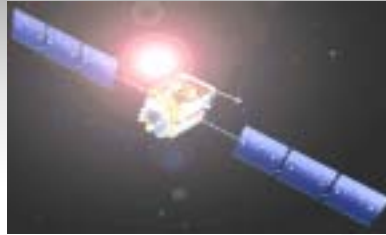


DTV Workshop 2004

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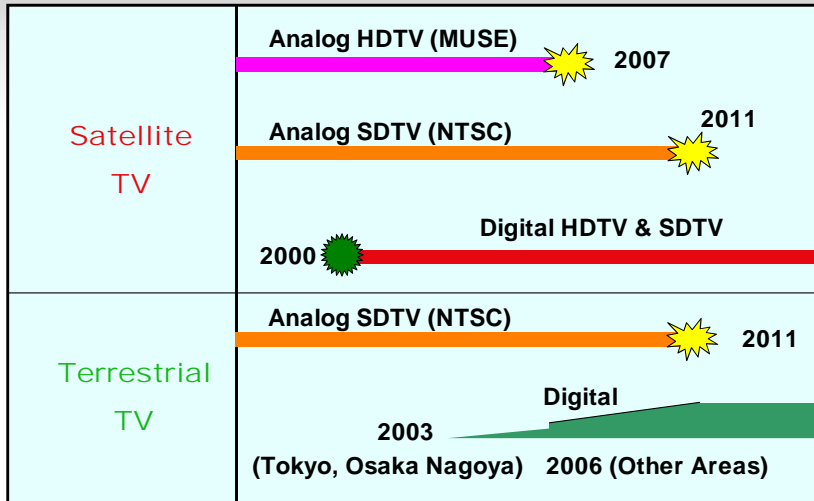
TV Service Overview and Schedule for DTV

TV Services Overview

	Launch	Services	Penetration
Analog Terrestrial	Feb. 1953	SDTV, Teletext	100%
Analog BS	Jun. 1989	HDTV, SDTV, Teletext	36%
Digital BS	Dec. 2000	HDTV, SDTV, Data, Radio	14%
Digital Terrestrial	Dec. 2003	HDTV, SDTV, Data	5%

Number of households 48 million
 TV receiver 120 million
 VCR 50 million

Schedule for DTV



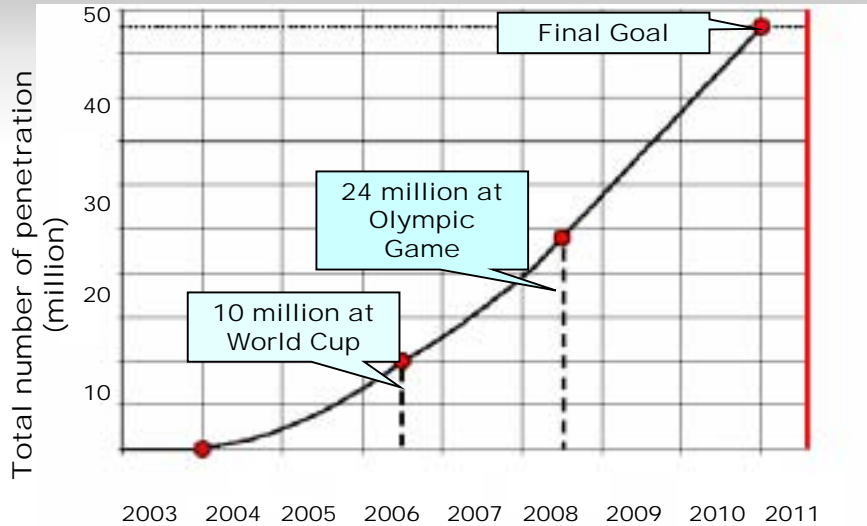
Complete Transition to Digital

Analog Satellite HDTV: 2007

Analog Satellite SDTV: 2011

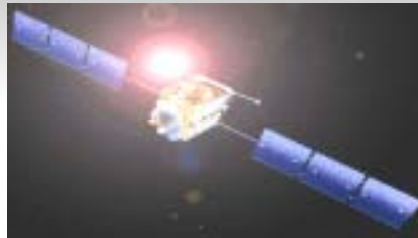
Analog Terrestrial TV: 2011

Objectives for Penetration of DTTB



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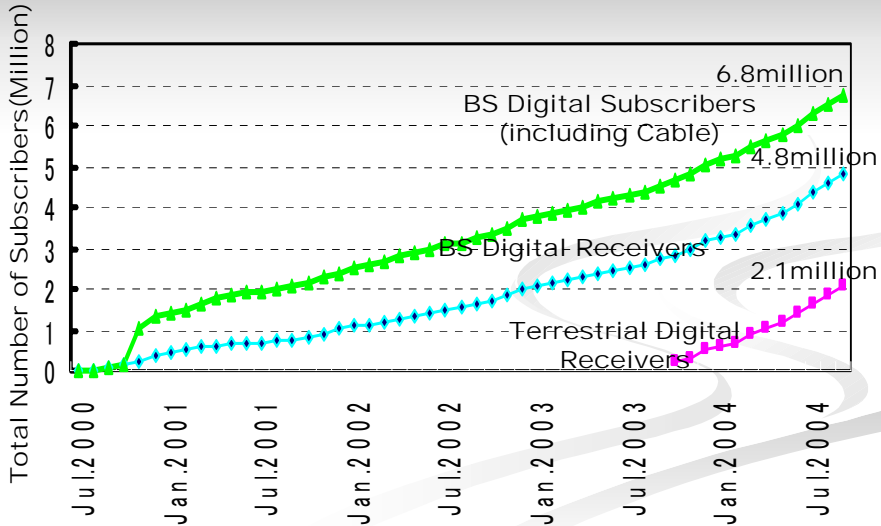
Household Penetration of Digital TV

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DTV Penetration Progress

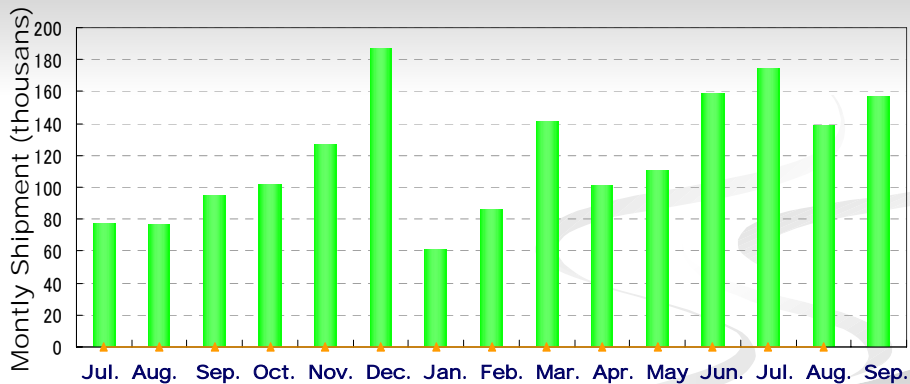
As of Sep.2004



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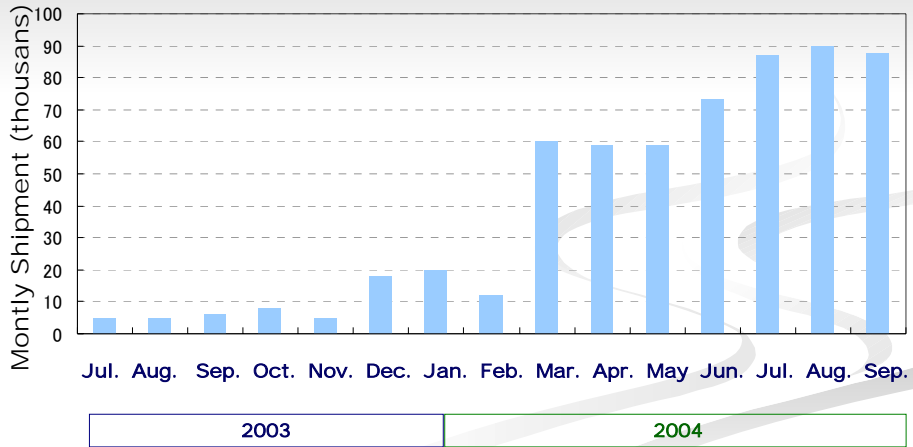
Digital Receiver Shipment



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Digital STB for CATV Shipment



Digital TV Receiver Trend

TV Receiver Trends

" All Digital HDTV Compatible "






- Broadcasting Satellite
- Terrestrial
- Communications Satellite

" Flat Panel "


" LAN Compatible "

Digital Receivers

(As of Oct. 2004)

	Manufacturers	Models
 CRT (28 to 36 inch)	7	29
 PDP (32 to 61 inch)	7	48
 LCD (23 to 45 inch)	7	55
 STB	11	14
 STB (for CATV)	8	14

Production increase schedule of PDP

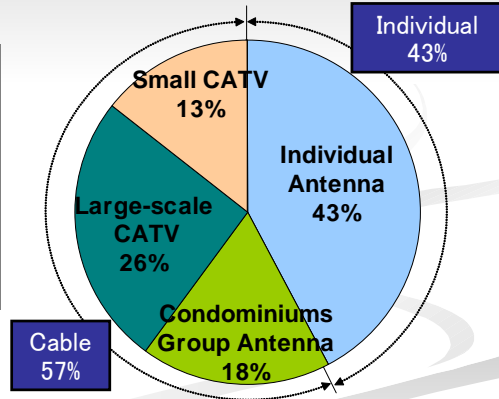
	2004	2005	2007
 PDP	2.8 million	4 million	8.6 million



Forms of TV Reception

Forms of Terrestrial Reception

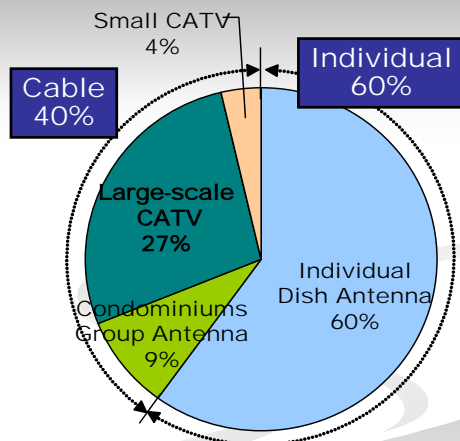
Individual	43%
Cable	57%



Rate of Households

Forms of BS Reception

Individual	60%
Cable	40%



Rate of Households

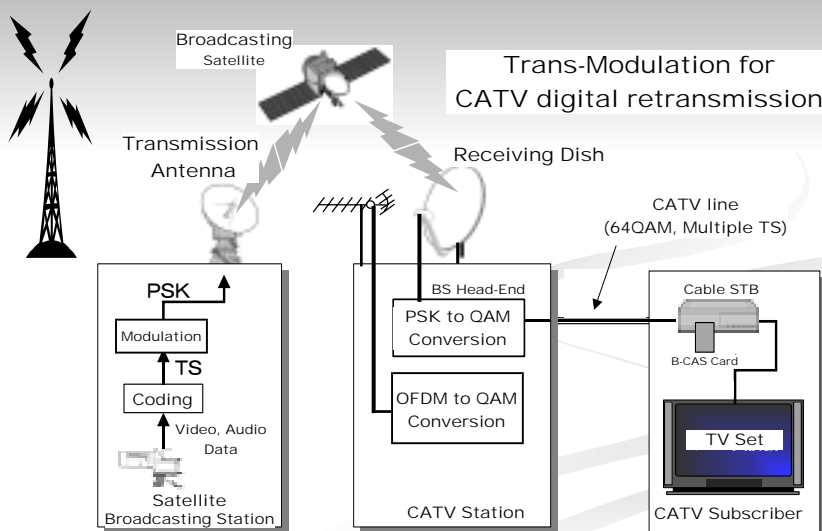


Digitization of CATV (Large-scale Cable TV)

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Digital Reception via Cables



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Digital Head-end for Cable TV

Trans-Modulation
Head-End



Pass-Through
Head-End

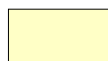
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BS Digital Subscribers via Cables

Number of Households: As of Sep. 2004

Retransmission System	Coverage	Subscribers
Trans-Modulation	14.6 million	72.9 thousand
Pass-Through	0.2 million	1 thousand
NTSC Conversion	3.8 million	1.9 million



Digital Retransmission



Analog Retransmission

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Terrestrial Digital Penetration via Cables

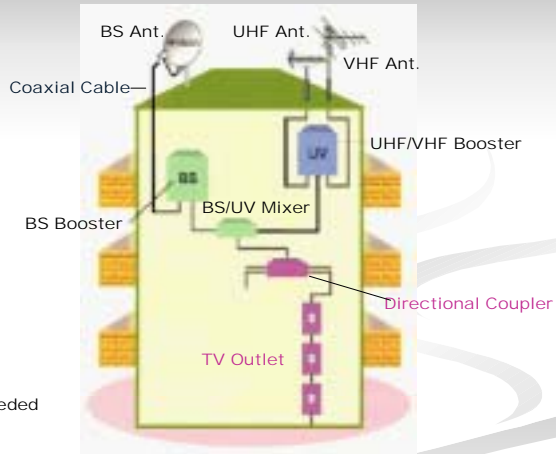
Number of Households: As of Sep. 2004

	Retransmission System	Coverage
Kanto (Tokyo)	Trans-Modulation	3.5 million
	Pass-Through & Trans-Modulation	0.4 million
Cyukyo (Nagoya)	Trans-Modulation	0.5 million
	Pass-Through & Trans-Modulation	1.1 million
Kinki (Osaka)	Trans-Modulation	1.0 million
	Pass-Through & Trans-Modulation	1.1 million
		7.1 million



Digitization of CATV (Condominiums)

Reception System Upgrade for Condominiums

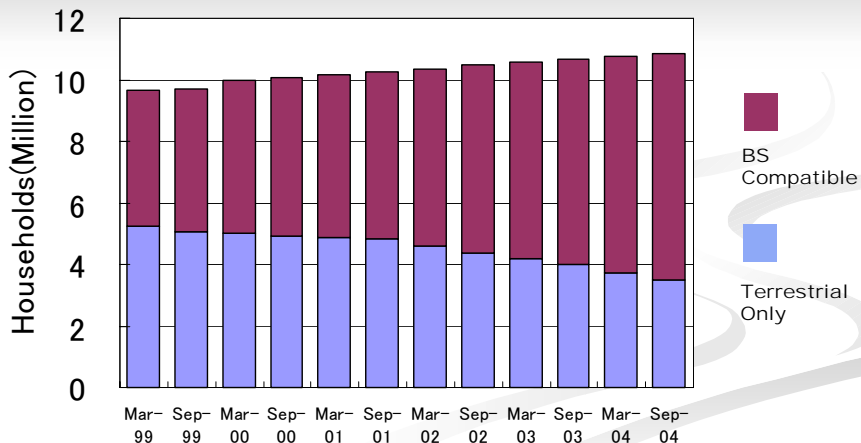


UHF/VHF to BS-IF/UHF/VHF
System upgrade details

- No modifications needed
- Shall be added
- Shall be replaced with BS-compatible units

System Upgrade Progress

BS-IF Upgrade Progression of the
Condominium TV Reception Systems





Penetration Promotion activities



Cooperation with Related Parties

- Consumer Electronic Manufacturer
- Wholesalers, Retailers
- Local Government authorities
- Building Construction Industry

Technology Workshop



In each year, more than 50 thousand electronics retailer technicians attend NHK's broadcasting reception technology courses

- Latest trend of digital Broadcasting
- Technical know-how of digital reception

Conclusion

- Japan's digital TV services are steadily gaining popularity
- More than 2 million/year subscriber increase
- The complete transition to digital television broadcasting is a great challenge
- For the historical digital transition, Japanese broadcasters are closely tying up with all the related parties