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Current moment of DTV Implementation in Brazil

El Estandar de Television Digital Terrestre

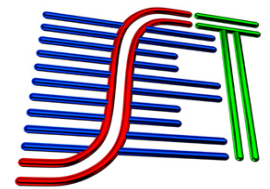
Olímpio José Franco

SET - Sociedade Brasileira de Engenharia de Televisão

SET- Brazilian Society of Television Engineering

Lima 2009

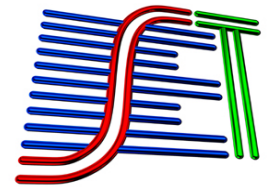
Agenda



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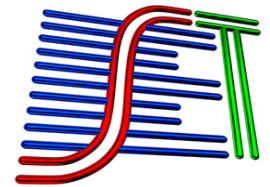
- o Current moment of DTV start in Brazil
- o Network installations
- o Local Professional Manufacturers
- o Local Consumer Product Manufacturers
- o Local Consumer Prices
- o Local software developments for middleware Ginga
- o Digital Insertion
- o HDTV growing : Open & Pay TV markets

Current moment of DTV start in Brazil



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- o 14 months after December 2nd, 2007: start in SP
- o On air : 11 cities
- o HDTV Programs are growing
- o SDTV Programs all the time: one seg
- o Interactive Applications has been developed
- o New software houses are appearing
- o Consumer products market is growing
- o Consumer products Prices are getting affordable

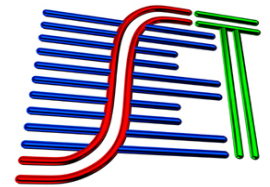


- o **On air** : São Paulo / Rio de Janeiro / Belo Horizonte / Goiânia/Curitiba/Campinas/Porto Alegre/ Salvador /Cuiabá/Florianópolis/Vitória
Campinas

2009(Feb &Mar)

Fortaleza(Feb)/Campo Grande(Feb) /
Uberlândia(Mar) / Sorocaba(Mar) /
/Santos(Mar)João Pessoa(Mar)

Network installations



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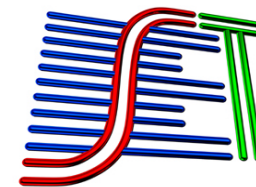
2009:

João Pessoa / São Luis / Natal / Maceió / Jundiá /
Londrina / Palmas / São José do Rio Preto/Manaus
Anápolis / Luziânia / Porto Velho / Rio Branco /
Belem/Macapá / Boa Vista/Feira de
Santana/Recife/Teresina/Aracaju/São José dos
Campos/Mogi das Cruzes/Taubate/Juiz de Fora

2010:

Cascavel / Foz do Iguaçu / Maringá / Rio Verde /
Jataí / Itumbiara / Porongatu / Catalão / Gurupí /
Araguaina/Vitoria da Conquista/ /Boa
Vista/Brasilia

DTV Field strenght in São Paulo -SP



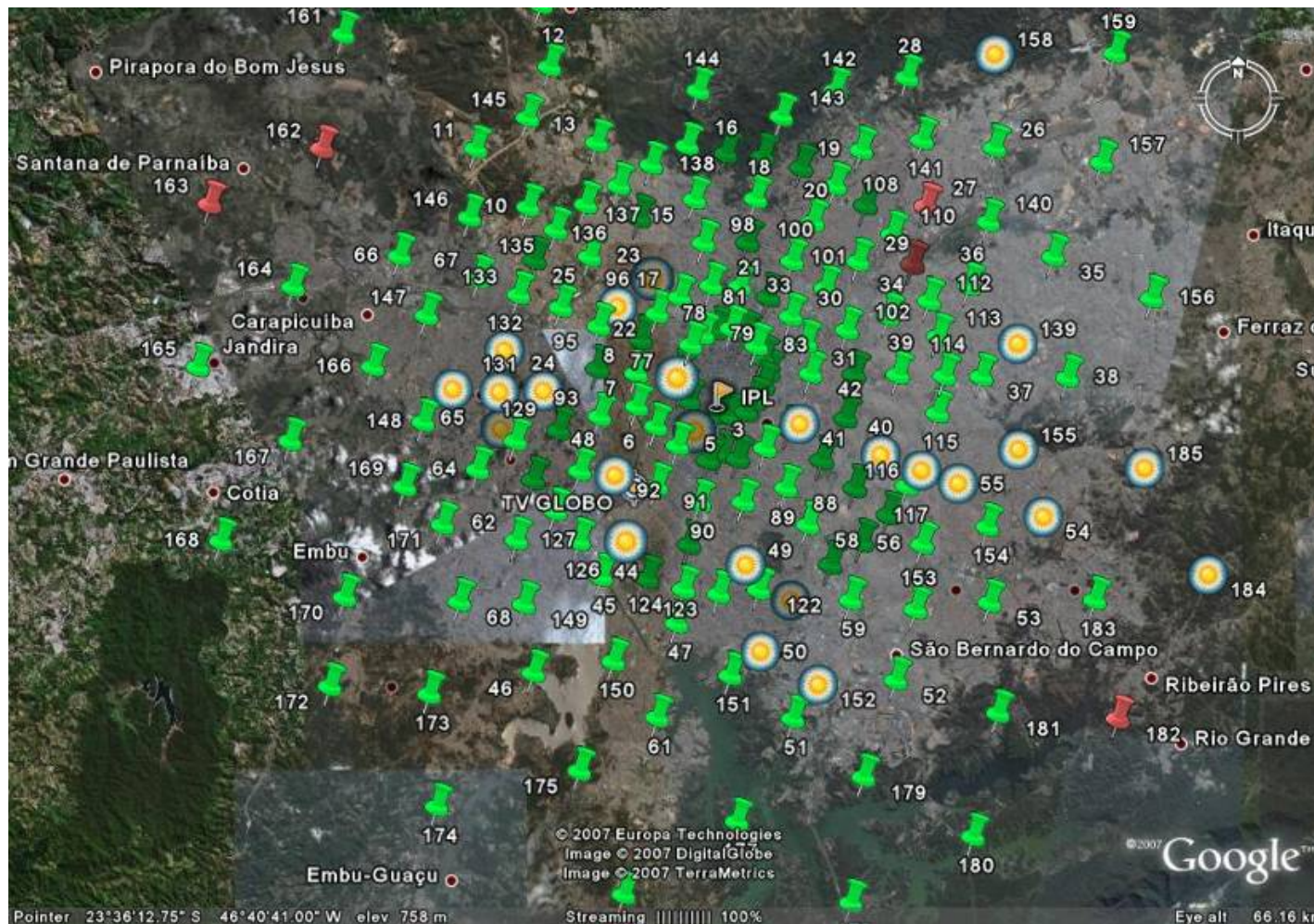
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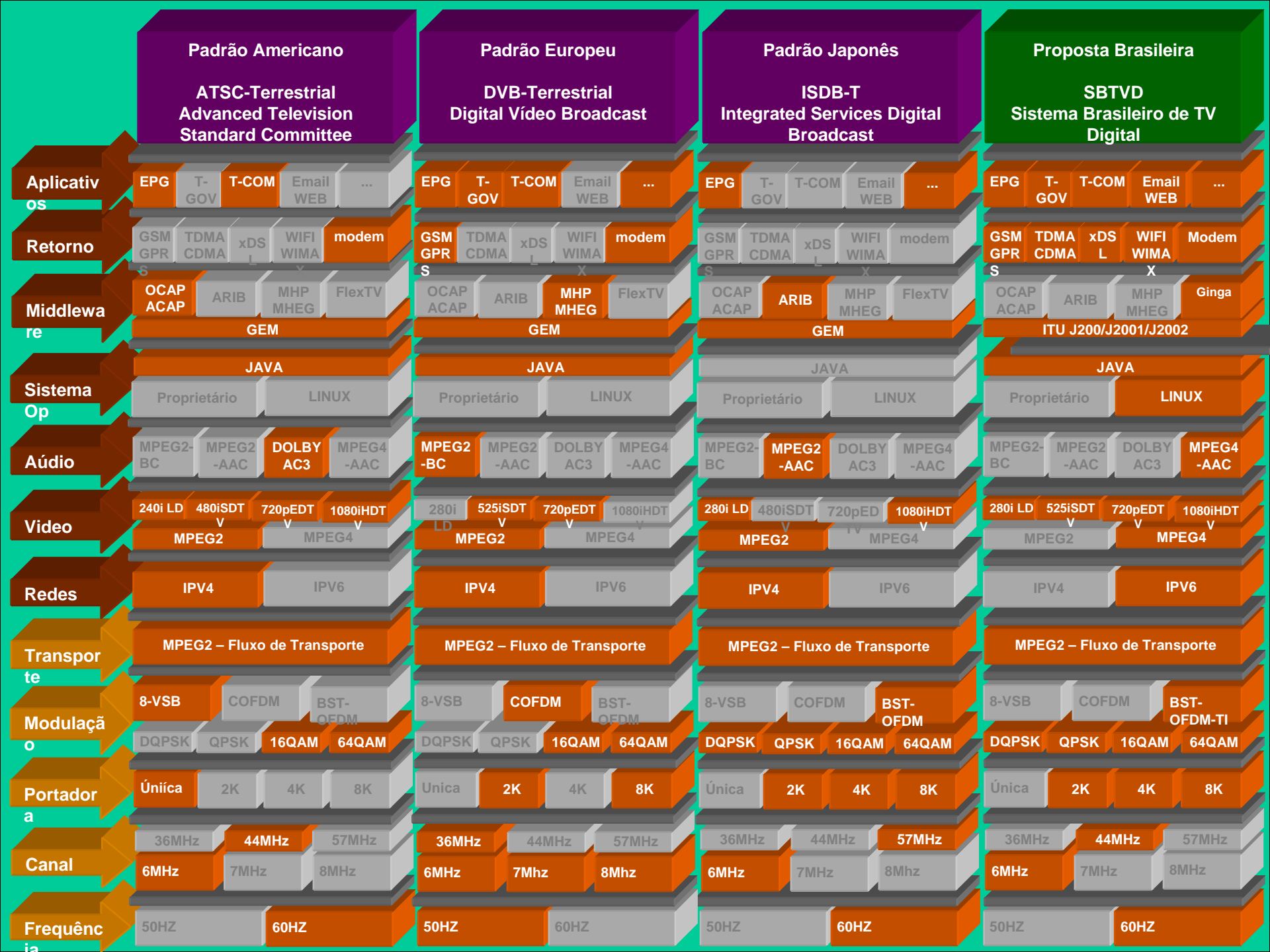


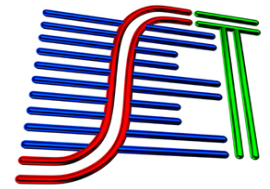
Measured



Problems

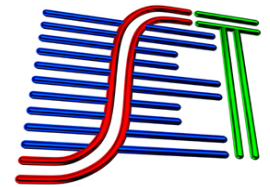






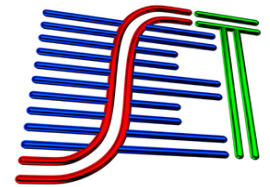
TV Transmitters

- o Linear
- o Telavo
- o STB
- o Screen Services / Teclar



Antennas

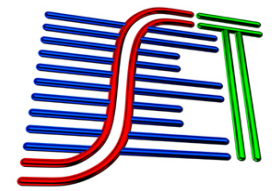
- o Transtel Conti (Associated w/ Dielectric)
- o Mectronica
- o Ideal
- o RFS (medium and low power)



Integrated TV Receivers

- o LG
- o Panasonic
- o Sony
- o Philips
- o Gradiente
- o Samsung
- o Olevia
- o AOC - Envivio
- o CCE

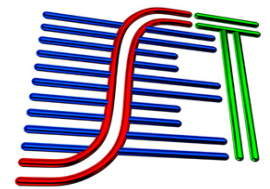
Local consumer product manufacturers: Integrated TV set



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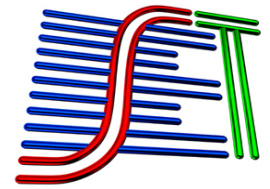
Local consumer product manufacturers: Integrated TV set



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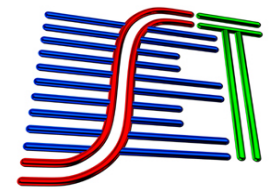
Local consumer product manufacturers: set top boxes



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- o Semp Toshiba
- o Philips
- o Sony
- o Gradiente
- o Positivo
- o Aiko
- o Telesystem
- o Coship
- o Proview
- o Visiontec
- o Century
- o Tecsys

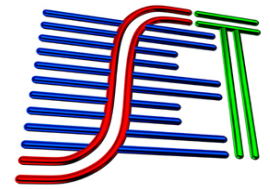
Local consumer product manufacturers: STB



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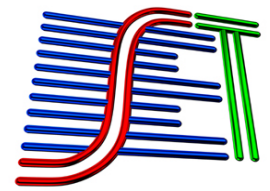
Local consumer product manufacturers: STB



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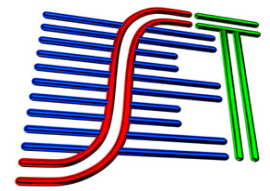
Local consumer product manufacturers: STB



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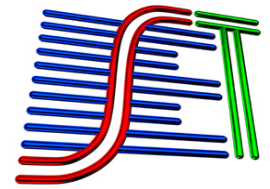
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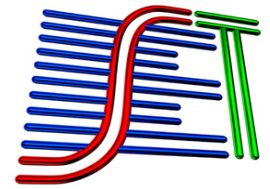
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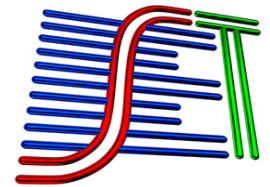
Local consumer product manufacturers: STB



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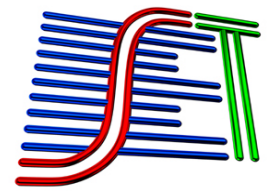
PHILIPS



Portable 1 seg Receiver

- o Gradiente
- o Semp Toshiba
- o Century
- o Telesystem
- o Aiko
- o Tec Toy

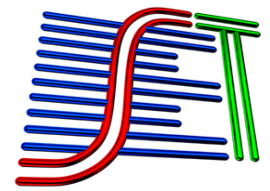
Local consumer product manufacturers: : One seg Portable RCVR



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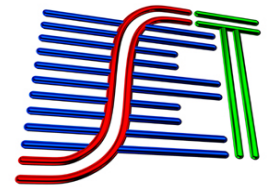


Local consumer product manufacturers: : One seg Portable RCVR



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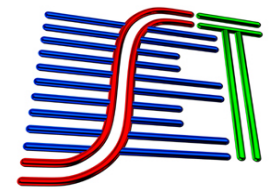




USB 1 seg receiver

- o Semp Toshiba
- o Century
- o Gradiente
- o AOC / Envivio
- o Tec Toy
- o Aiko
- o Telesystem
- o Philips

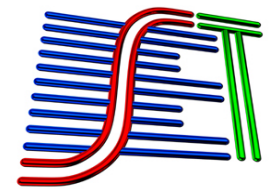
Local consumer product manufacturers: One seg USB receiver



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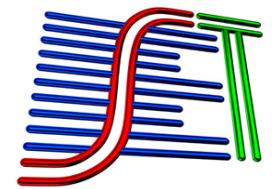
Local consumer product manufacturers: One seg USB receiver



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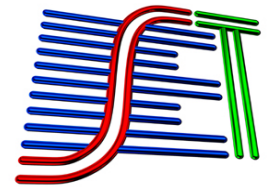
Local consumer product manufacturers: One seg USB receiver



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Local consumer product manufacturers

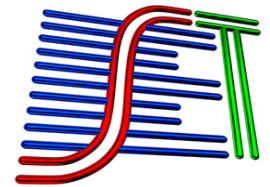


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Mobile phone (celular phone)

- o Semp Toshiba
- o Samsung

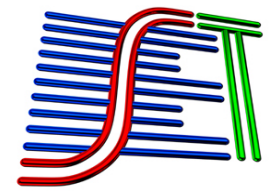
Local consumer product manufacturers: One seg Mobile Phone



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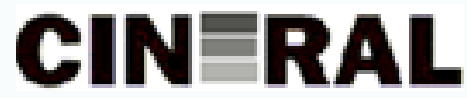


Local consumer product manufacturers: One seg Mobile Phone



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* Free competitors , nobody owns over 20% of market share and around 6 companies owns between 6% and 10 % of market.Benefits for the consumer !

Consumer Main Products - Production - 2007



TV

11,3 Milion units

R\$ 6,4 Bilions



DVD

6,6 Milion units

R\$ 888 Milion



AUDIO

5,0 Milion units

R\$ 1,7 Bilion



Camcorders

1,2 Milion units

R\$ 450 Milion

TV Main Products - Production -2007



TV CRT

10,3 Milion units

R\$ 4,0 Bilion



TV LCD

804 Mil units

R\$ 1,8 Bilion



TV PLASMA

191 Mil units

R\$ 0,6 Bilion



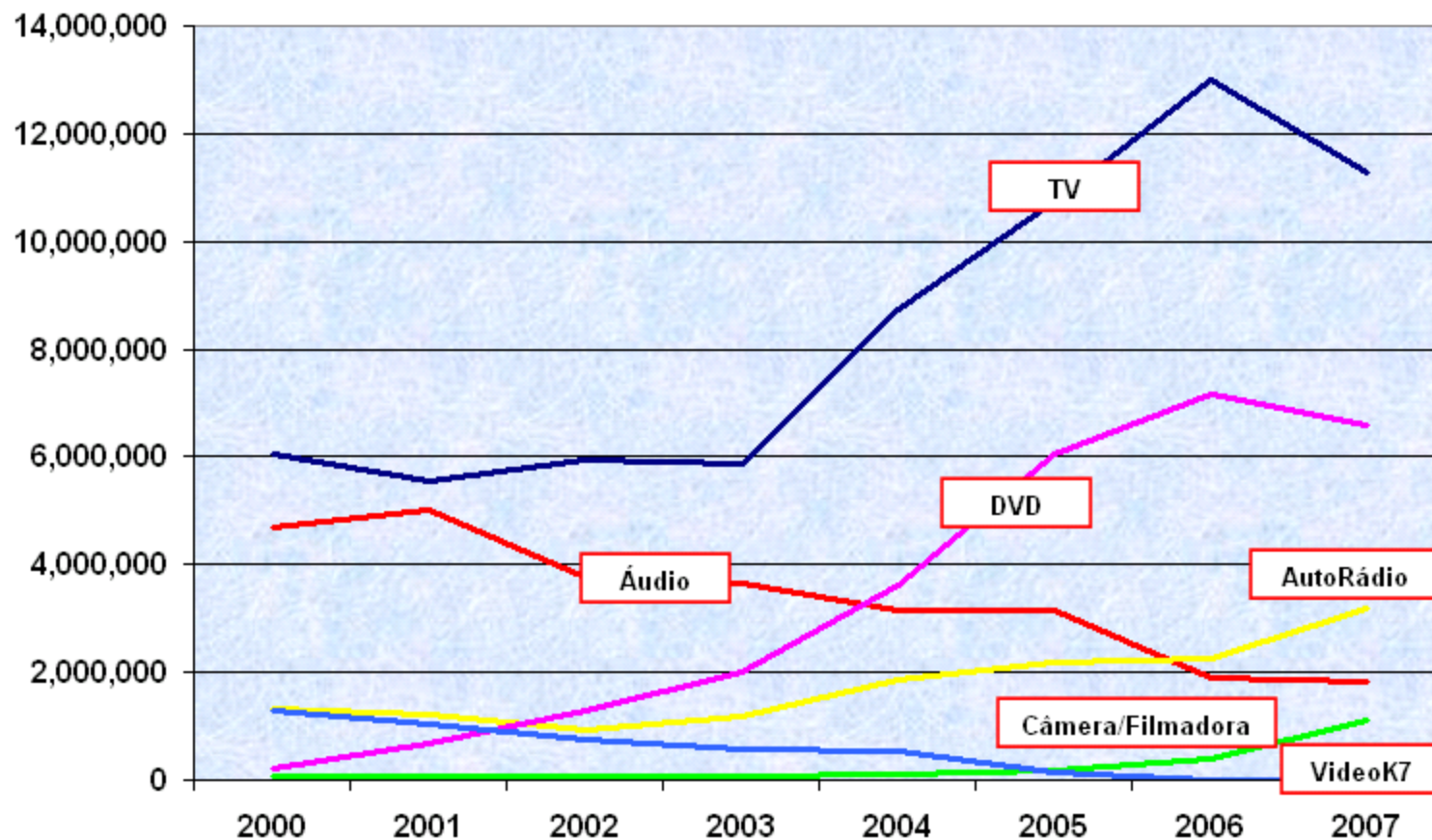
TV Set top box

5,1 Milion units

R\$ 0,7 Bilion

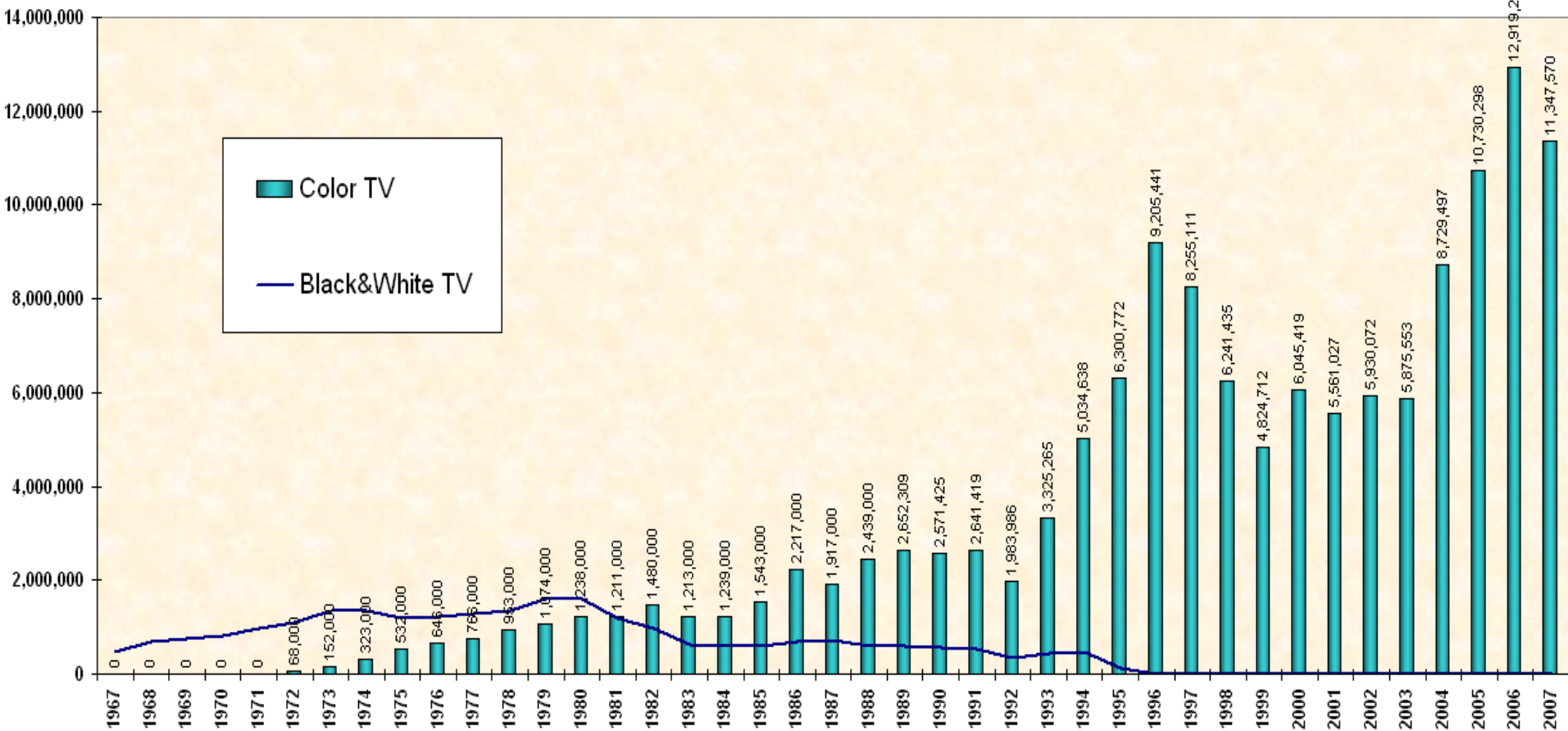
Main products

Produção - PIM - Quantidades



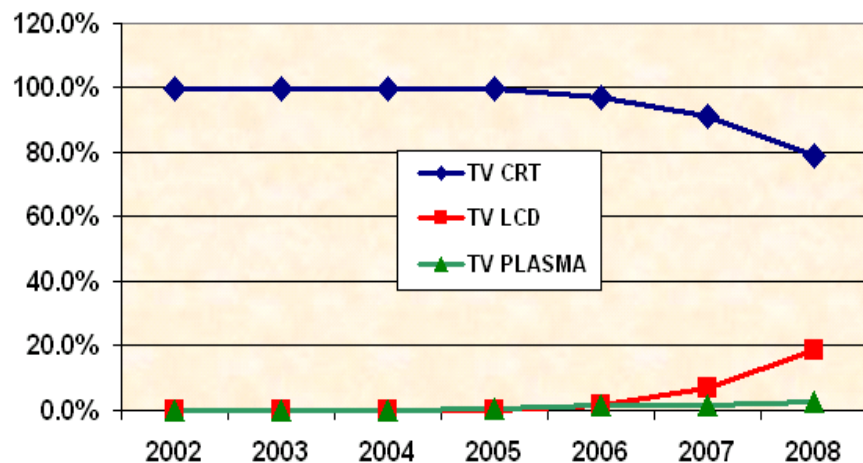
Brazil : Total TV Production Sales Quantity

Historical Data - Source : ABINEE/ELETROS/SUFRAMA

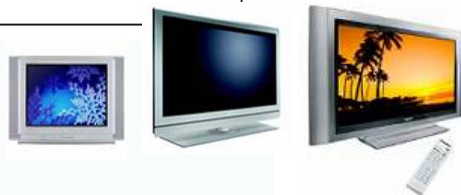
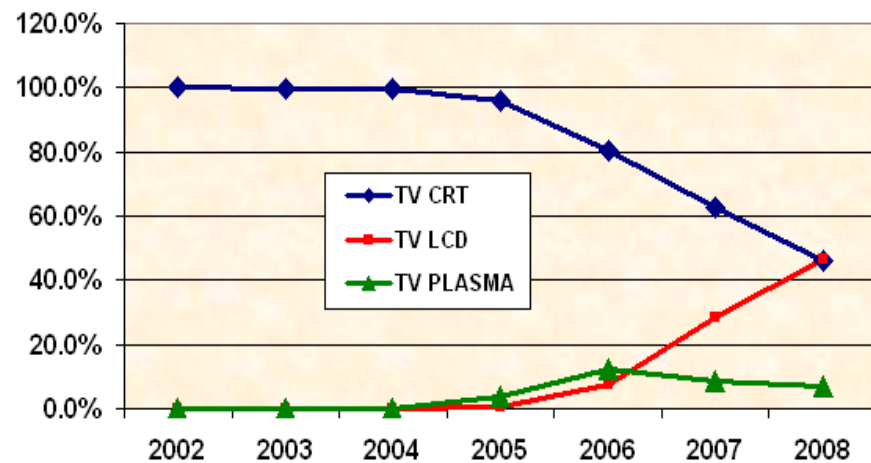


TV Digital TV - Market transition

Tvs - Quantidades

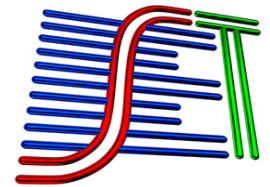


Tvs - Valor (R\$)



- Display Technology Transition
- Transition analog x Digital
- Value of LCD+PLASMA > Tube type TV - CRT

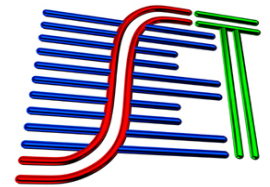
Consumer DTV products Brazilian Manufacturing:2008



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- o Until now is 600.000 of STBs/USB rcvrs/Portable RCVRs/Integrated TVsets
- o Most of LCDs & Plasmas TVs Set are HDTV Ready and Integrated DTV
- o 2008 Consumer Production grew, compared to 2007

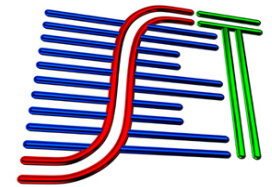
Consumer DTV products Brazilian Prices: Average values



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- o **STBs (HDMI) = R\$380,00=US\$158,00**
- o **Integrated TV Set LCD 42 "(Full HD/CtRatio 30.000:1 / 3 ns) =R\$3.700,00=US\$1.541,66**
- o **Integrated TV Set LCD 46" (Full HD/CtRatio 25.000:1 /) =R\$4.330,00=US\$1.820,00**
- o **Portable TV Set (1seg)=R\$500,00=Us\$208,33**
- o **USB TV Rcvr(1 seg) = R\$200,00=US\$83,33**

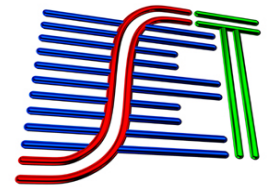
Local software developments for the middleware Ginga



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- o Mopa
- o TQTV D
- o Hirix
- o Cesar

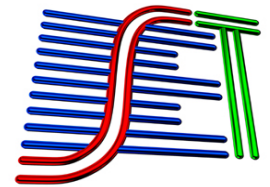
Opportunities for Argentina, Chile, Ecuador, Venezuela, Peru



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- o Greater production scale for consumer products
- o To repeat good experiences of neighbor countries
- o Cooperation between countries
- o Allows exchange HDTV programs productions
- o Ginga will be very powerful for social and digital inclusion: government public policies

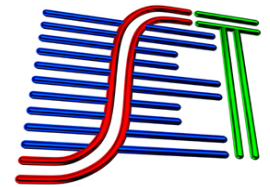
Audiences of Pay TV and free to air TV Networks: Brazil



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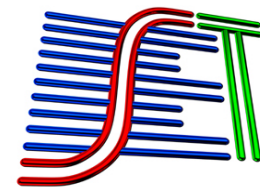
- o Bigger audiences on the Pay TV operators comes from free to air TV Networks
- o HDTV productions from free to air TVs Networks will lever audiences and growing of Pay TV operations.
- o HDTV with higher quality possible: Major cable operator NET is carrying DTV free to air TVs Networks with 17 MB/s, per channel.

We are just beginning and learning



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- o We adopted a flexible , robust and advanced standard.
- o The standard is prepared for the next 30 years. Future proof.
- o The Brazilian decision was not based only in low prices of receivers.
- o DTV products prices are decaying every month.
- o There are many competitors.



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Thanks & Gracias

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