# digital digest

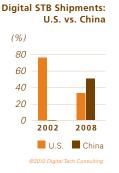
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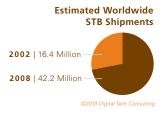
Digital Tech Consulting

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### Breaking Open the Digital Cable STB Market

For more than a decade, two suppliers, Motorola (formerly General Instrument (GI)) and Cisco (formerly Scientific Atlanta (SA)), have dominated the market for digital cable set-top boxes (STBs). As digital cable STBs have proliferated throughout the world, however, the market has grown and changed, challenging this dominance and opening the market to a variety of new STB players.





The U.S. cable market, which saw the first deployments of digital cable in the mid-nineties, has long been a virtual duopoly in terms of equipment suppliers, with GI and SA providing proprietary infrastructures to network operators, leaving little opportunity for competitive offerings from other suppliers due to compatibility issues with their systems. Since the U.S. market has made up the vast majority of digital cable shipments (being the first cable market to digitize), this has kept Motorola and Cisco (which bought GI and SA, respectively) controlling much of the worldwide STB shipments.

But as the market for digital STBs matured over the past 15+ years, the dominant position of the U.S. market, and the dynamics within it, have changed dramatically, opening up substantial opportunity for new suppliers to gain market share. Several factors have driven these trends.

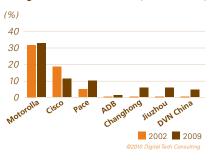
International deployments, particularly from China, have made up an increasing share of the whole. While the U.S. market made up nearly 80% of total shipments in 2002, by 2009 this dropped to just 35%. This shift has brought in several new suppliers for the domestic Chinese market who have obtained top market share positions. Suppliers like Changhong, Jiuzhou and DVN China had virtually no market share in 2002, but now have annual shipments in the millions.

The U.S. market, while shrinking in its overall portion of worldwide shipments, has also shifted away from the proprietary paradigm that characterized the analog cable market. Several initiatives by U.S. R&D consortium Cable Labs have sought to create a more *Continued on next page*.

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standards- based market, largely for the purpose of breaking operators' dependence on single suppliers so they can benefit from more competition among many suppliers.





One of the most aggressive to pursue this opportunity is Pace. It gained a toehold into the U.S. market in 2005, obtaining a significant order for HD STBs from Comcast, the largest U.S. cable MSO. Since then it has added several other operators to its customer list, helping to grow its worldwide market share from just 5% in 2002 to 10% in 2009.

These trends will only intensify going forward. Although a growing number of international deployments will continue to cut into the market share of long-entrenched incumbents, Motorola and Cisco will remain major players. Their future market share will stem not from their control of proprietary infrastructures, but the competitive merits of their products both in the U.S. and around the world.

## Hottest Digital TV Market? China

While most TV suppliers are working hard in the U.S. and Europe to sell 3D HDTVs (HDTV household penetration is as high as 64% in the U.S.) Chinese TV suppliers are in the bloom of selling their first round of digital TVs to the Chinese population.

Millions of analog-only sets are still being made and sold although digital LCD TVs are rapidly dominating sales for all TVs. DTC's latest research in conjunction with Chinese-based RedTech Advisors estimates LCD TV shipments into the domestic Chinese market for the first quarter of 2010 to be about 12 million units – a very healthy quarter for TV suppliers. Our research suggests, however, that there were a significant number of sets in the pipeline at the end of the quarter and fewer units are anticipated to ship in the second quarter as a "pipeline correction" is likely to occur.

Pipeline correction or not, the current market for digital TVs makes China the hottest market at a time when digital TV saturation has set in for many Western nations. And unlike the U.S. and Europe, domestic TV suppliers dominate sales. About 70% of LCD TVs distributed in China come from home grown consumer electronics companies such as Hisense and Skyworth. The bottom tier of suppliers is comprised of consumer-electronics giants that dominate TV sales in most parts of the world like Samsung and Sony, as well as other lesser-known Chinese brands.

China is likely to continue to dominate DTV sales (at least, in terms of volume shipments) for the foreseeable future. Digital cable infrastructure has been fairly well built out, but there is very little digital terrestrial infrastructure built. It is anticipated that terrestrial will follow cable in getting the next big analog-to-digital makeover.

With an estimated 385 million TV households and only the beginnings of its first wave of building digital TV platform infrastructures, China is arguably the most important TV market in the world. DTC's Domestic Chinese LCD DTV Quarterly Tracking Service, which reports on quarterly shipments by screen size, suppliers, chip suppliers, and video compression technology, is now available for the first quarter of 2010. The service also includes important information on panel suppliers and OEM/ODM relationships among Chinese TV suppliers and their contractors.

For more information on the Domestic Chinese LCD DTV Tracking Service, please go to http://dtcreports.com/documents/china%20marketing%20rev.pdf, or call Myra Moore at 1.214.915.0930.

### US Mobile TV Overview:

In addition to dedicated mobile TV providers such as FLO TV, traditional TV broadcasters are now dipping their toe in mobile TV waters. With the cost of building the infrastructure to add mobile TV broadcast to traditional broadcasting being minimal (in most cases less than \$100,000), broadcasters have few roadblocks to experimenting in the mobile sphere. DTC research shows that a number of traditional broadcasters are opting to run test trials of mobile broadcasts. More than 30 stations are currently airing mobile broadcasts in some form and 75 stations have services planned in the near-to-mid-term future. In a country where there are more than 1,500 broadcasters, these stations only represent the very beginnings of the broadcast mobile TV market.

Most traditional broadcasters will simulcast their free-to-air regular line up. DTC's research suggests, however, that some broadcasters plan to offer a mixture of free and fee-based programming once they get the new services off the ground and are able to assess consumer behavior and take-up rates. In fact, the new broadcaster consortium, Pearl Mobile DTV Company, unveiled at NAB in April, is designed to create a national network of free and pay mobile TV services.

In the meantime, mobile broadcasting can deliver several other advantages, especially with initial infrastructure costs being negligible. The possibility of collecting additional advertising revenue from FTA broadcasts is, of course, an incentive for broadcasters. Another important advantage is building brand recognition and awareness – especially for local news – as well as simply securing a place for traditional terrestrial broadcasters at the mobile video table. As more and more Americans take their video entertainment on the road or in their pockets, local broadcasters will want to be in the driver's seat when it comes to how their content is used and distributed.

There is a third, and less tangible, reason for broadcasters to publicly embrace mobile TV broadcasting – to demonstrate to the FCC that they are continuing to make efficient use of their spectrum and in such a way that benefits local viewers. The FCC's call for terrestrial broadcasters to voluntarily give up some spectrum so that it can be reallocated for wireless networks has U.S. broadcasters taking all possible measures to retain coveted spectrum. Being able to provide stationary and mobile services (especially local news coverage during a community crises or natural disaster) within existing spectrum demonstrates efficient use of their existing spectrum.

The initial number of stations trying out the new ATSC mobile TV standard may be small but those numbers are likely to rise as broadcasters have enough reasons to – at a minimum – test out the system. Consumer adoption will be the deciding factor as to whether the broadcasts are tests or commercial services.

"As more and more Americans take their video entertainment on the road or in their pockets, local broadcasters will want to be in the driver's seat when it comes to how their content is used and distributed."

# MISSING REVENUE?

Have you suspected that you may be leaving revenue on the table when evaluating how to use your intellectual property in the emergingtechnologies markets? It's important to understand the market potential of your IP and once you've designed a licensing program, you want to make sure that you know who is using your IP and that they are accurately reporting sales. Such critical issues deserve tailored marketresearch expertise concentrated in quantifying technology use and potential revenue. DTC's more than 10 years of experience in helping companies manage their IP has resulted in the foundation of solid market-forecast models that account for both products and services that use very specific and sometimes obscure technology. DTC's intellectual-property services are put to work in a number of varied situations. Our clients have employed our expertise: to forecast potential revenues for technology IP they own; conduct due diligence for IP acquisitions; identify companies using their technology; to apply our critical technology market and licensing knowledge to help in developing sound licensing terms.

For more information about DTC's technology IP services and client case studies, please contact Myra Moore at 214.915.0930 or myra@dtcreports.com.

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For more information, please visit http://dtcreports.com/report\_avc.aspx Digital Tech Consulting is a market research firm providing strategic information and analysis to help companies succeed in the consumer digital marketplace. To learn more about DTC and how our analysts might help your company, please contact us at the information below.

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