

# The Next Step...

# in Mobile Communications



## Smart Antenna

# Smart Antenna . . . the next step for a mobile world

*Smart Antenna offers you more to meet your cellular and PCS network needs. More capacity. More range. More quality. More flexibility.*

## **Boost cellular network capacity with Smart Antenna**

Many analog cellular systems are currently at or near maximum capacity. Growing your cellular system by adding microcells could be costly, and upgrading to digital means replacing customers' phones.

Smart antenna technology is the smart solution. It can increase the capacity of your cellular network up to three times, at a cost competitive to that of adding microcells. And the upgrade is transparent to the customer. With Smart Antenna, up-front capital investment is lower, because network capacity can be added as customer demand grows. Smart Antenna also supports a graceful migration from analog to dual analog/digital mode, evolving to satisfy the market's changing needs. Leverage your infrastructure investment with Smart Antenna.

## **Expand the range of your PCS network**

Gain macrocell type coverage with microcell power. Increased cell coverage means you spend less money on infrastructure, because you need fewer cell sites. Smart Antenna substantially increases the range of a cell, using beam forming techniques as simple as switched and as complex as adaptive.

## **Enhance the quality of your customers' cellular and PCS communications**

Smart Antenna enhances quality in two ways—by changing RF beam characteristics to receive signals more precisely and by employing sophisticated electronics to filter out interference. The result is an increase in the overall quality of the customer's mobile phone connection.

## **Improve the flexibility of your network**

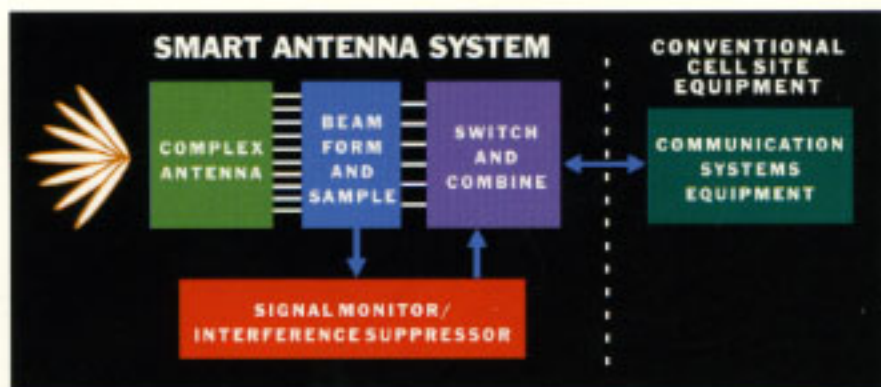
Mobile phone traffic patterns, interference, and coverage change throughout the day. Smart Antenna, unlike a conventional antenna, electronically adapts—in real time—the RF footprint of the network to meet these changing customer needs.

## **Spanning a broad array of disciplines—TI's forte**

Smart antenna technology is only about 10% antenna; the rest is digital signal processing and electronics.

TI's competencies—in radio frequency and microwave antenna technology and as an industry leader in digital

signal processing, software development, and the design and manufacture of complex electronic systems, among others—converge to qualify TI as a preferred provider of smart antenna technology.



## **Are you ready to get Smart?**

Smart Antenna is proven technology. And, with more than 25 years of experience, TI is an established technological leader. If you are ready to take the next step, or if you simply want to discuss the technology, TI is ready to talk with you.

**Call (800) TI TEXAS, toll free. Just select the first option for product information, and find out more about TI's Smart Antenna solution.**

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