

Santenna- Smart Antenna Network (BGN)

<u>Reuven Shavit</u>, Department of Electrical Engineering, Ben-Gurion University, Beer Sheva, Israel Dayan Rachamim, Department of Electrical Engineering Ben-Gurion University, Beer Sheva, Israel <u>Joseph Tabrikian</u>, Department of Electrical Engineering Ben-Gurion University, Beer Sheva, Israel

Santenna proposes novel adaptive Multiple-Input Multiple-Output - Space-Polarization Division Multiple-Access (MIMO-SPDMA) technology for wireless smart antenna applications.

Goals

Enhanced-capacity, high-rate data transmission, wide coverage and reliable communication services for WiMAX and 4G Cellular communications.

Efficient low-cost handling of these tasks.

Deployment of enhanced-capacity high-rate data transmission without a large array of base stations and antennas.

Benefits

Able to extend the capacity of current wireless systems, such as WiMAX and 4G Cellular communications, by 40-100%

Supports enhanced-capacity, high-rate, high-speed internet connections, video phone calls and video on demand (VoD).

Potential Commercial Uses

WiMAX - sales projection of \$290 million by 2008; initial response to new WiMAX-based chips expected to be strongest in China, Southeast Asia, and Eastern Europe.

4G Cellular - communications-market sales projection of \$800 billion by 2009-2010.

Development Stage and Development Status Summary

The Santenna prototype is designed and ready. Its unique smart antenna technology has been extensively tested by computer simulation.

Development plan - The objective of the development stage is to create a prototype system that includes a base-station communicating with several mobile units.

Patent Status

Patent Pending

Contact for more information:

Zafrir Levi , VP Business Development Engineering,

BGN Technologies Ltd. - Technology Transfer Company of Ben-Gurion University, POB 653, Beer-Sheva, 84105, Israel, Tel: +972-8-6236949 Fax: +972-8-627-6420