

Magnolia's **DiversityPlus™** technology is based on diversity antenna architecture, taking advantage of two separate RF signals to improve performance.

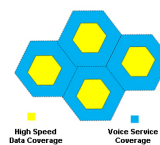
A combination of algorithms and RFIC's for cellular handsets, the DiversityPlus™ patent-pending algorithms reside in the ARM™ processor of the Base Band IC and its unique processing enables Receive and Transmit signal enhancement.

The DiversityPlus™ family of RF products are integrated chip solutions based around the company's direct conversion technology, VCO-on-a-chip, power amplifiers and low noise amplifiers. It can support multi-band CDMA2000 protocols and be fabricated on standard SiGe processes.

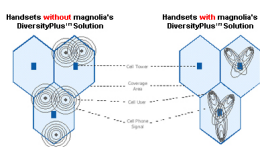
Supporting the company's innovative approach, Magnolia's DiversityPlus™ solution does not require any modifications to wireless standards or network infrastructure equipment, while providing a multiple increase in spectrum utilization (network capacity), coverage and extended performance (Quality of Service) for voice and data services. It also extends battery life and SAR emissions.

Magnolia's technology is applicable for other standards and protocols for future applications.

### Magnolia Offers Wireless Carriers A Viable Solution



- Increasing uplink data rates combined with higher frequency transmission creates high speed data
- These “gaps” are service zones where users get inferior, slower data connections that are notably
- Fully closing the service “gaps” takes ~8-10 uplink dB's, a significant technical challenge



**Figure 1: (Without DiversityPlus)**

## Innovation

Written by Administrator  
Friday, 13 May 2011 06:21

---

- Handset signals create interference and inefficiencies on the network
- Signals transmitted from handsets located far from the base station are forced to increase power o

### Figure 2: (with DiversityPlus)

- Magnolia's transmit diversity solution enables more efficient sharing of network capacity by both di
- The solution reduces interference and decreases power requirements for handsets at the edge of t