

## Pulse antenna offering answers LTE systems specificities, improves signal robustness and maximizes system capacity

Long Term Evolution (LTE) is the latest standard in mobile Network Technology, referred to as 4G. LTE promises to dramatically increase mobile uplink and downlink data rates and will operate at vehicle speeds up to 500 kmph (310.7 mph), with optimum data rates achievable at vehicle speeds up to 15 kmph (9.3 mph). LTE is backwards compatible with UMTS systems, and is designed to increase traffic capacity, reduce overall power consumption and provide an enhanced level of service when compared to current 2G and 3G services.

Initial LTE deployments in North America will begin in 2010, with availability to over 35% of the US population by the end of the year. Further deployments will take place in 2011 with at least four LTE networks under construction during that period. The two largest carriers in the US own spectrum in the 700 MHz band for LTE deployments. That band will also be used for Public Safety applications. Devices to support LTE applications are currently being developed and released, with more to come in 2011.

Pulse provides antennas for emerging LTE applications in single and multi-band configurations for SIMO and MIMO systems. Product types include Base Station, Distributed Antenna System, Mobile, Portable and Fixed Access Point antennas. Pulse is a recognized technology leader with a strong catalog offering and customer specific design capabilities in Europe, North America and Asia.

## Pulse antennas meet LTE requirements for MIMO, beamforming and diversity antennas

### Outdoor Antennas

Pulse outdoor antennas are wind rated to 100 MPH, are IP (Ingress Protection) rated at 65, 67, 68 and are constructed of UV resistant materials.



## External Antennas

External antennas are connected outside the product but not exposed to outdoor weather conditions. The antenna is connected directly to the product with a RF connector or remotely via a cable.



## Internal Antennas

Internal antennas are connected to the product PCB as an SMD component or via a cable and a miniature connector. The antenna is placed inside the product enclosure so it's not visible by the end user. Pulse's expertise in the mobile phone industry allows the development of high performance standard antennas as well as extensive custom capability.

