

Experts in LTE and Specialized Networks



CommAgility is an award-winning, world-leading developer of embedded signal processing and RF modules, and LTE PHY/stack software, for 4G and 5G mobile network and related applications. We design the latest DSP, FPGA and RF technologies into compact, powerful, and reliable products, and combine them with our industry-leading LTE software.

Our customers around the world comprise major corporations and prime contractors, as well as smaller companies and cutting-edge 5G research projects. CommAgility provides worldwide support both directly and through a network of distributors.

CommAgility is part of Wireless Telecom Group, a global designer and manufacturer of advanced RF and microwave components, modules, systems and instruments.

Private and Specialized LTE Networks

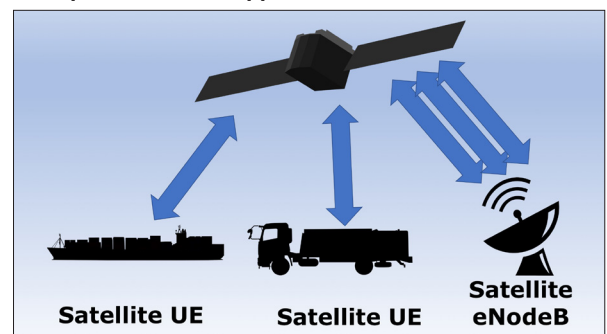
- Private networks encompass a variety of cellular networks that operate as a closed system, in applications such as military, avionics, satcoms, maritime, energy, public safety and asset tracking.
- LTE has become the technology of choice, due to its spectral efficiency, broadband capabilities, all-IP network, low power/low data rate capabilities and economies of scale. Initiatives such as CBRS promise to offer easier LTE spectrum access for private networks.
- We have vast experience in LTE, especially around adapting the standards for novel application areas in private networks. We are highly flexible and work closely with our key customers to meet their technical needs and support them through development into volume production.

For Specialized Networks, We Provide:

- LTE eNodeB and UE baseband and stack processing
- Board-level solutions, integrated hardware and software
- Customized software and hardware services
- eNodeB and multi-UE test infrastructure
- RISC/DSP/FPGA and RF processing
- Ruggedized options
- Chassis integration

Road

Example Sat Comms Application



Some Key Applications

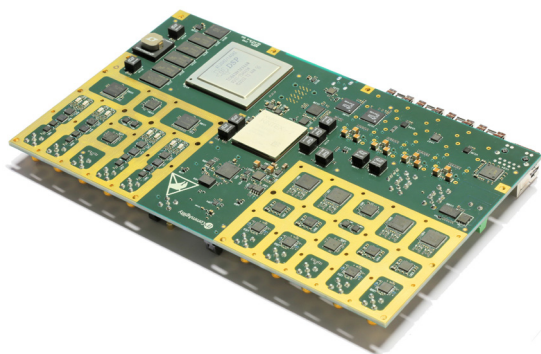
Aviation LTE

For LTE in aviation, CommAgility can provide eNodeB and UE customizations such as:

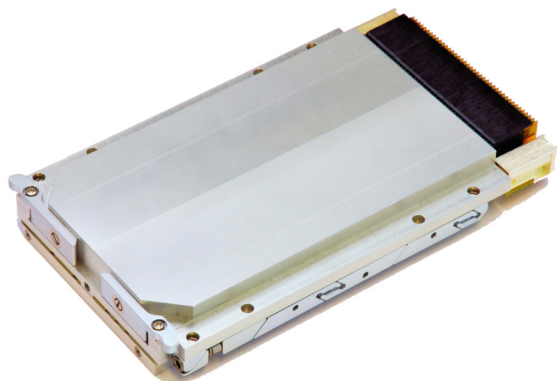
- Increased distance / cell size / roundtrip delay time
- Doppler compensation for speeds beyond LTE
- Measurements and handover under high Doppler
- Scheduler and power control customizations to support customer specific radio and antenna configurations
- Test solutions for system diagnostics and production

Hardware Capabilities and Platforms

CommAgility has a broad range of hardware, based around the latest Texas Instruments DSP SoCs and Xilinx FPGAs, as well as RF interface cards. Our products include high performance processing cards in stand-alone, AMC and OpenVPX form factors, including up to four integrated, flexible, wide-band RF transceiver channels. Many of our products are designed to work in harsh environments.



Our hardware is aimed at LTE through to 5G systems. For example, complete RF to Layer 3 wireless basestation functionality can be implemented on a single AMC card. CommAgility hardware is ideal for use in test equipment, research and development, specialized applications such as wireless surveillance, and other uses such as imaging or radar.



Satellite LTE Network Customizations

Satcoms requires algorithmic and protocol adaptations to handle problems such as higher latency, specific interference or multiple parallel channels. CommAgility can provide integrated protocol stacks with adaptations for:

- Specific bandwidths, frequencies to match satellite link
- Power control for beam forming with large antenna arrays
- Location-based beam steering
- Scheduler customization for RF calibration
- End-to-end testing of custom LTE system

Software – the CommAgility Technology Platform

CommAgility provides LTE software for 4G and 5G applications, including wireless infrastructure and specialized and private networks such as air to ground and satellite comms. Many of our customers need to differentiate their products for specialized applications as well as to reduce risk and costs and increase re-use. Now, with the evolution of our products to 5G New Radio, our customers are assured to have CommAgility as their partner for their future development needs.

Key Benefits:

- 3GPP standards-compliant, future proofing your investment
- C-based, for flexibility in hardware platform choice
- Pre-integrated onto CommAgility and Texas Instruments solutions, cutting time to market and development costs
- Leading chipset and IP core partner ecosystem enabling turnkey platforms
- Flexible and competitive licensing terms
- Unparalleled support from our highly experienced engineering team
- UE and eNodeB PHY available as reference chains, providing flexibility to OEMs

Radio Access Network

