

# APPLICATION BRIEF

# **Test and Measurement**

CommAgility's experience and expertise in DSP and LTE makes us the ideal partner for wireless test equipment, end-to-end test of custom LTE networks, and performance measurement at all levels of the LTE PHY and stack, as well as the new 5G NR technology.

Our support of scalable platforms and protocol stack modification, and our open software support model, allow our customers to deliver their own bespoke test solutions.



Numerous customers use CommAgility hardware as the basis for wireless test equipment, including Aeroflex and Hermon Laboratories. For LTE test, CommAgility provides the following solutions and expertise.

### MicroTCA based modular hardware

Each successive increase in wireless bandwidth leads to an exponential test requirement. MicroTCA can support this:

- AdvancedMC DSP/FPGA processing, RF interfaces, and high-speed I/O
- RapidIO transport for large, flexible, high bandwidth systems
- Chassis based scalability of 100+ cards in a cabinet
- Cards can be added to support future wireless generations
- CPRI, RF cabled and over-the-air test solutions





### **SmallCellPHY and Stack**

Pre-integrated PHY and Stack for CommAgility AdvancedMCs:

- Multi-SoC, multi-PHY scalability
- EPC integration tested
- S1 OAM test support
- Low level messaging debug access

### **MobilePHY and Stack**

LTE PHY and stack for UE test applications. Complements CommAgility's SmallCell software to provide end-to-end test solutions.

## SmallCell and Mobile RefChain

- Test vector generation for physical layer and radio test
- Algorithm development and validation
- Customizable test environment

### **VeriPHY**

LTE PHY and RF test framework:

- MAC emulator
- 1000+ test vectors available

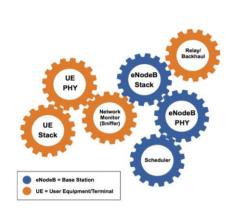


# **System Capabilities**



### **Integrated hardware and software**

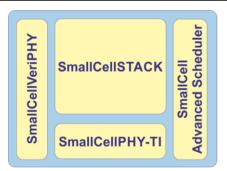
CommAgility has developed a range of high performance DSP/FPGA boards, including telecom cards in the AdvancedMC form factor, enabling modular scalable platforms for bespoke solutions. We integrate these with our LTE eNodeB and UE software, to create proven system level LTE hardware and software solutions.



### LTE software products

CommAgility provides 3GPP standards compliant LTE software, including

- UE and eNodeB PHY available as reference chains, providing ultimate flexibility to improve portability and scalability
- Pre-ported and validated PHY and Stack, delivering an IP hardware and software block for integration into your silicon design
- Pre-integrated PHY and Stack on silicon devices, for immediate use in your wireless product development
- Full source code availability and design services for tailored applications



### Small cell products

- Complete 3GPP Rel. 8, 9 & 10 software solution for LTE small cells using Texas Instruments' SoCs
- SmallCellPHY is the foundation for small cells from top tier vendors who use Texas Instruments' SoCs
- Entirely software-defined, delivering high flexibility and scalability for small cells
- Basic Scheduler plus optional Advanced Scheduler
- Test suite for PHY level functional, compliance and performance testing



### **Mobile products**

CommAgility's Mobile PHY and Stack products are the foundation for portable and scalable UE solutions.

MobilePHY, along with the integrated MobileSTACK is supported on the TI KeyStone baseband devices with a roadmap to TCI6638 and Rel. 10. CommAgility can tailor this solution to meet application-specific needs and support for customer baseband SoCs.



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